# TELEPHONE and Management ENGINEER

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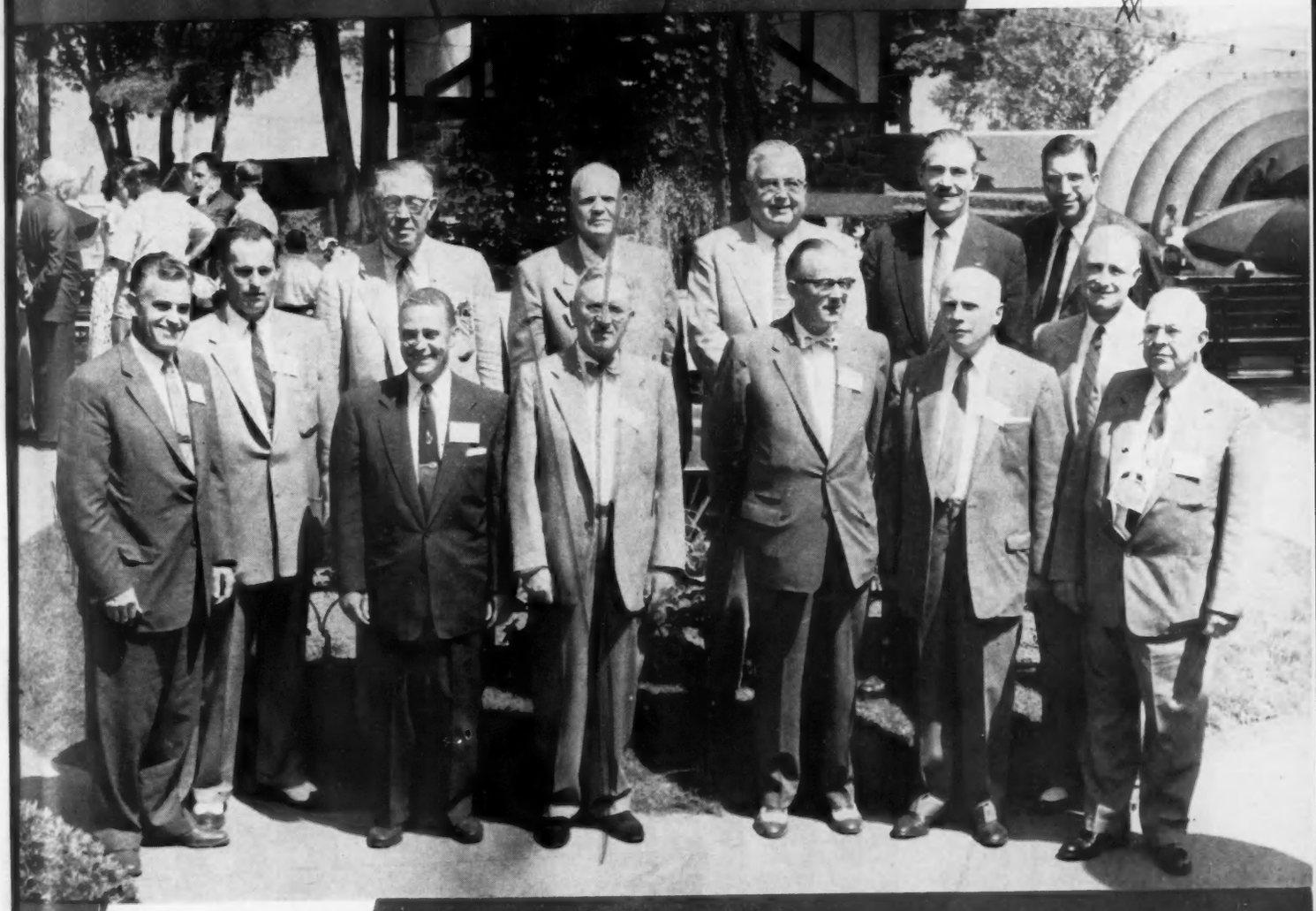

THE NATIONAL TELEPHONE MAGAZINE

**Featuring in This Issue—**

- ★ THE POSITIVE APPROACH, *by Don W. Walker*
- ★ MODERN CABLE CONSTRUCTION, *by John S. Reed*
- ★ SPECIAL SERVICES & SERVICE SPECIALTIES, *by Ruth E. Richards*
- ★ EDITORIAL — "YOU & YOUR SMALL COMPANY COMMITTEE"
- ★ HOW ARE YOUR TELEPHONE MANNERS? *by Phil Glanzer*

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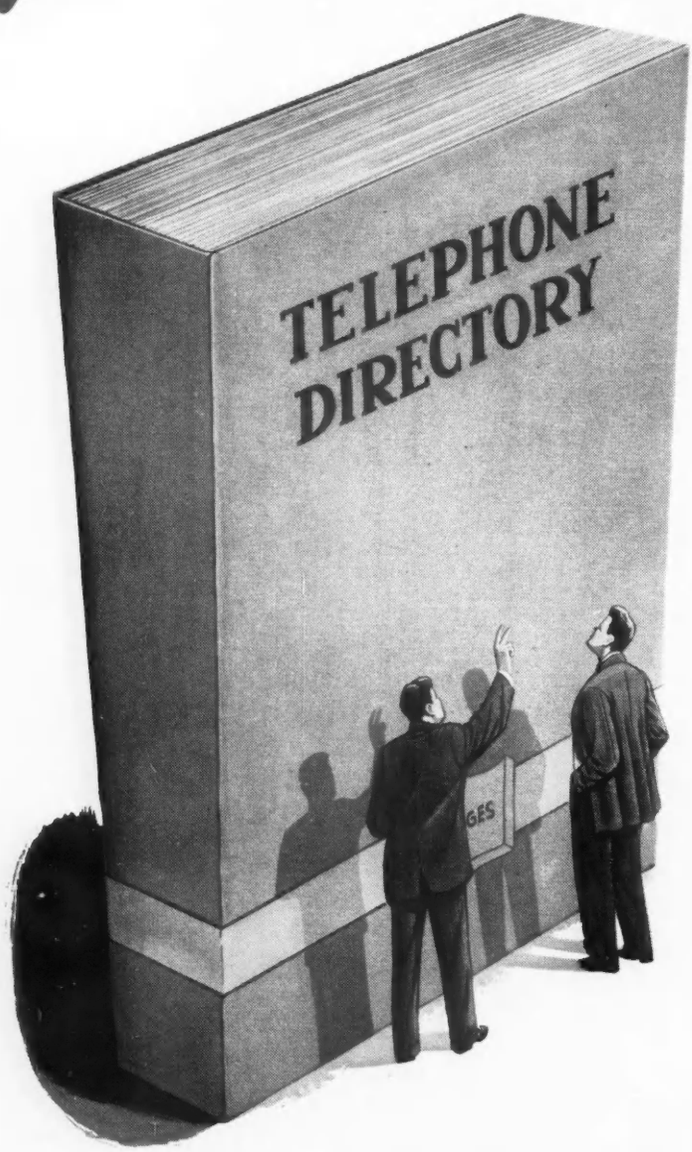


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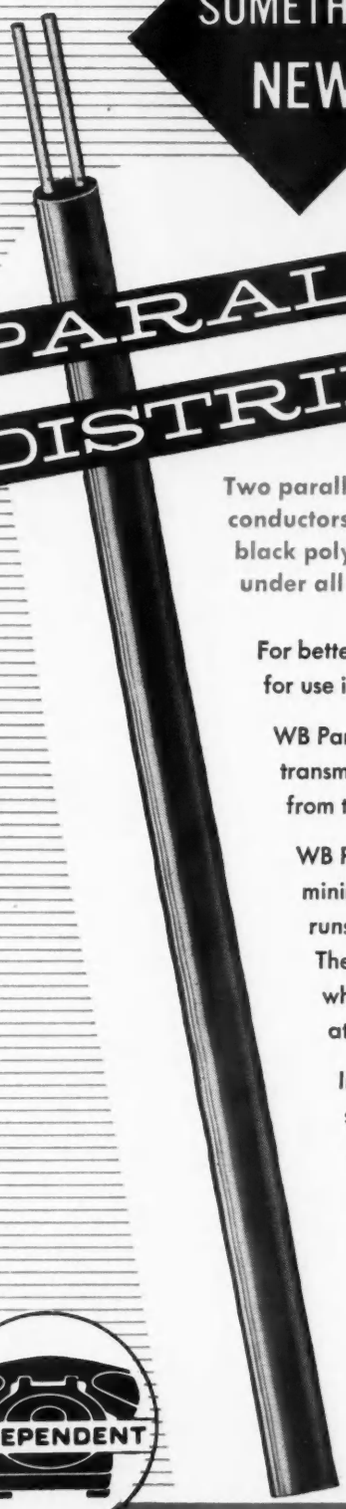

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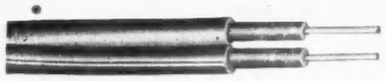
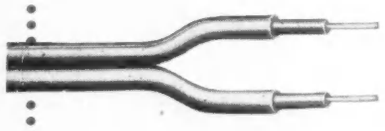


Twisted Pair

Parallel Reinforced



Parallel Figure 8

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A Telephone Engineer Publication

AUGUST 1956
Vol. 60 No. 8

The National Telephone Magazine

*Editor*, RAY W. SMITH • *Advertising Director*, ROY F. SMITH
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*Washington Bureau, Editors of "Telecommunications Reports"*
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## FRONT COVER

**OFFICERS. DIRECTORS of the New York State Tel. Assoc. and distinguished guests, (l to r) front row are: FRED S. FLORANCE, director; S. FRED NIXON, JR., director; C. RAY LLOYD, president and director; Chairman BENJAMIN F. FEINBERG, New York State Public Service Commission (guest); SHELDON A. BIRDSALL, director; Commissioner AARON L. JACOBY, New York State Public Service Commission (Guest); WILLIAM A. KERN, director WILLIAM A. SEELY, director.**
**(L to r) second row are: GEORGE S. BECKWITH, secretary-assistant treasurer and director; FRANK D. FANCHER, director; ALBERT N. SEWARD, vice-president and director; HAMILTON A. CUNNINGHAM, executive secretary; DON W. WALKER, director.**

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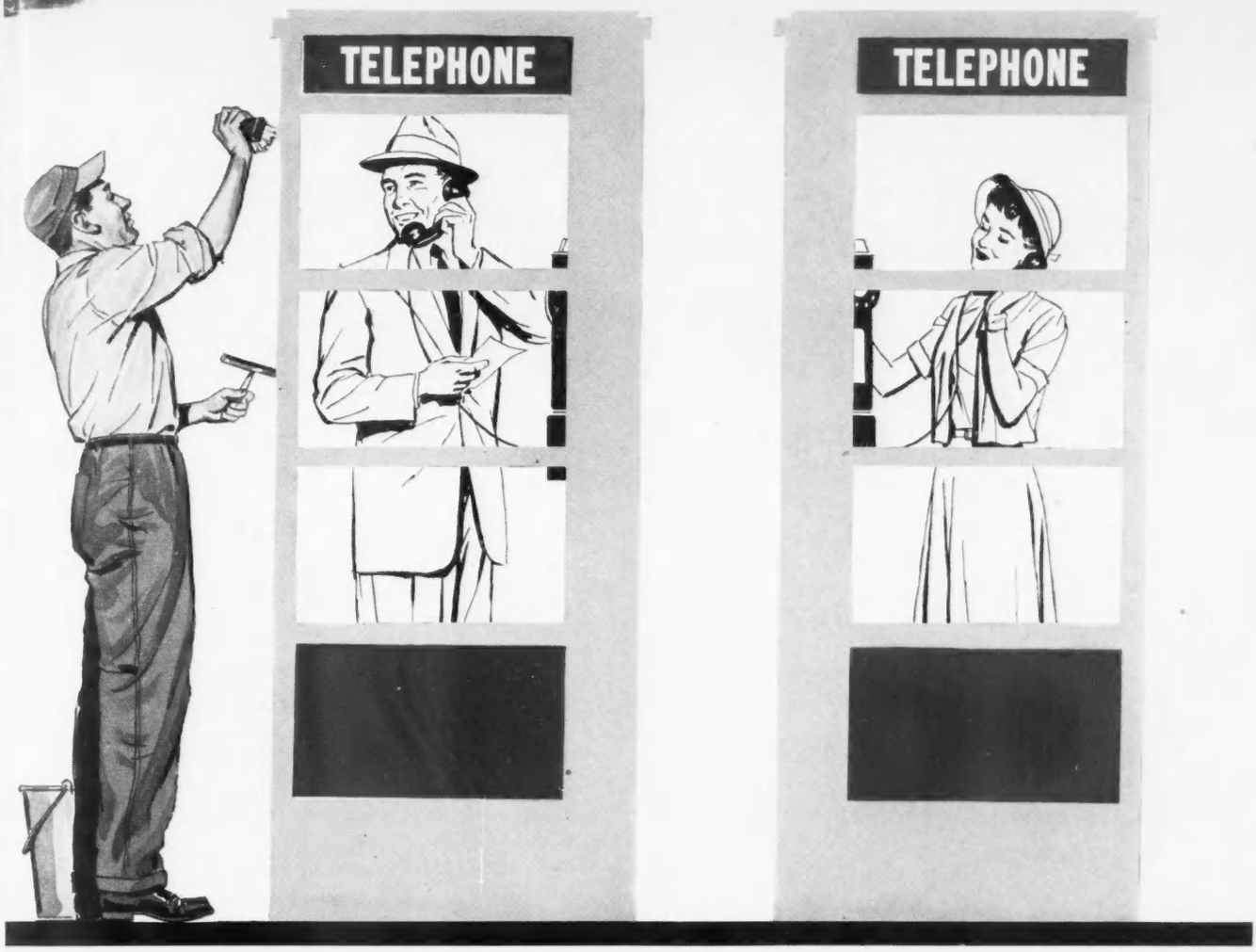


# Here's all the maintenance your Alcoa booths will ever need

Just an occasional washing with soap and water keeps your Alcoa® Aluminum outdoor booths shiny and new looking. They'll practically never need any other maintenance.

The finish, outside and inside, is anodized aluminum, an original Alcoa process which produces a very hard, durable surface. Dirt, smudges and pencil marks wipe right off. Aluminum is naturally very corrosion resistant, but anodizing makes it even more so. Alcoa booths never need painting.

These booths are very sturdily constructed and have the full approval of REA and Underwriters' Laboratories, Inc. The parts are interchangeable and any part can be easily replaced if damaged by an automobile.

Thousands of Alcoa booths are now in service and they're real money-makers, in service 24 hours per day. Patrons like the bright, attractive appearance and roomy interior (33½″ square x 86½″ high). Louvers provide good ventilation, and a handy shelf holds parcels.

Contact your jobber or write for informative folder on Alcoa's new money-making booths, another product of Alcoa's Jobbing Division. Aluminum Company of America, 1691-H Alcoa Building, Pittsburgh 19, Pennsylvania.

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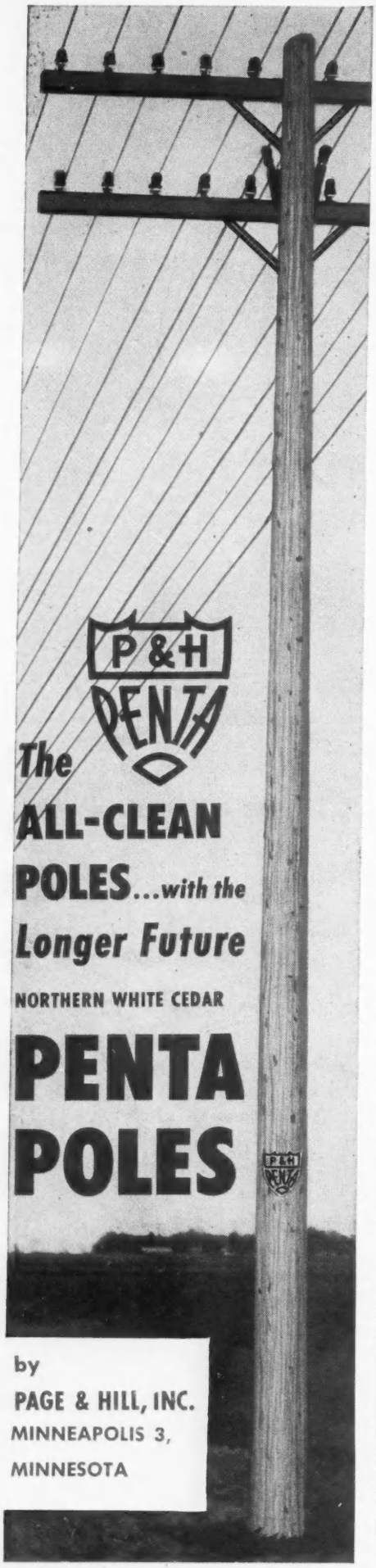


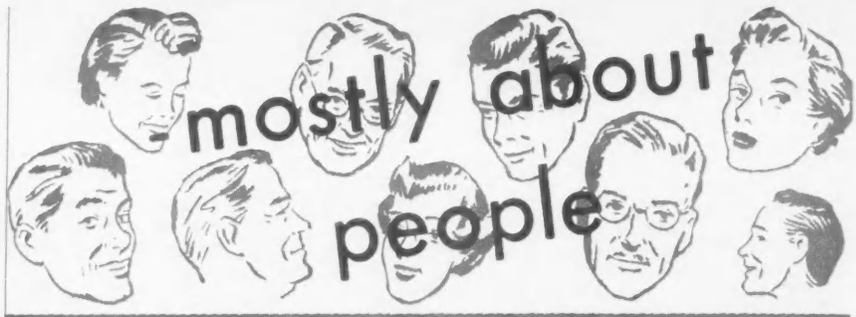


## ACROSS THE EDITOR'S DESK

**Frank S. Barnes**

FRIENDS of *Frank S. Barnes*, president of the *Rock Hill (S. Car.) Telephone Co.*, will be interested to know he is now feeling much better. Frank has been convalescing from illness at his cottage in Ocean Drive Beach and is looking forward to attending the coming national convention in Chicago this October. Frank informed us he returned to Rock Hill July 15.

**Joe Galligan**

VERY FEW of *Joe Galligan's* friends knew that his son was serving the FBI as a special agent from 1950 to 1956 until they received the announcement that *Joseph A. Galligan* had opened his law office in San Francisco in association with Richard P. Lyons. Their address is 110 Crocker-Anglo Bank Building, South San Francisco, Calif. Father Joe, proud chest and all, is manager of the San Francisco branch of the Stromberg-Carlson Co.

**Feature Article**

WE CAN IMAGINE how proud *Kelley McNish* was when he read the July 1 issue of the *Herald Courier* of Bristol, Va. and noticed the special article on the company he heads, the *Inter-mountain Telephone Co.*

The 4-column article traced the history of the company and gave comparative figures on operations of the company now and when it was in its infancy. Important too were the figures on expenditures for new facilities which will total $8 million in the next three years. The company's project is to completely convert to dial operation for all exchanges as quickly as possible. Congratulations are due to Kelley McNish and his associates on their excellent public relations program.

**John N. Johnson**

THE JULY 10 edition of *Look* was an exciting one for *John N. Johnson*, president and general manager of the *Inter County Telephone & Telegraph Co.* Fort Myers, Fla.

This community which is rapidly being known as "Palm Beach of the West Coast" provided the background and props for the main 2-color feature of *Look*, titled "The Great American Weekend." John's company provided the outdoor booth that served as a background for a lovely model. By straining your eyes a little the company name is discernible even though *Look's* editors tried to block it out.

**A Popular Book**

THANK YOU nice folks for your words of commendation on our 1956 *Catalog-Directory of Industry Suppliers. Editor John G. Reynolds* will be writing you personally for your very thoughtful expressions of gratitude.

From our mail it appears that many of you are using the mail coupon in that issue to obtain much of the free literature that is described so aptly by Mr. Reynolds. Letters of thanks from purchasing departments of our Independent telephone companies are indeed appreciated as the advertisers in that issue made it possible that we could bring you the edition with no extra cost to you.

**USITA Convention**

AS THIS is written during the so-called dog days it might be in place to remind you telephone folks that a *letter of reservation* for national convention hotel accommodations might be in place now to save you trouble in the future. *Conrad Hilton Hotel*, Chicago is the site and *October* 15, 16 *and* 17 are the dates.

# American Creosoting Company

## Pioneers in Forestry as well as Wood Treatment



• It has been estimated that the modern wood preserving industry, pioneered by the American Creosoting Company, has saved the nation the equivalent of 500 million acres of forest lands in the past 50 years. Great as this force has been, wood preservation alone was not enough to stem the tide of forest exhaustion.

The greatest conservation force is the forester and his science of forestry.

Just as it was the pioneer in wood preservation, American Creosoting Company was a pioneer in forestry. While the science of forestry was in its infancy, American Creosoting Company took a practical interest in the advancement of the science by purchasing large forest areas to make them available for the study and advancement of the practices of good forestry.

In this vast woodland laboratory, known as Satilla Forest, Amcreco has helped develop and carry out many of the scientific practices that are now in widespread use throughout private, industrial and government owned timber lands.

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Everyday the subscriber sees the telephone instrument, handles it, listens to it, speaks into it.

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To the extent that you provide the subscriber with an instrument pleasing in appearance, with superior transmission and reception quality, you are increasing the subscriber's satisfaction with you, your company, your service.

The NORTH N-541 Telephone is a superior instrument on all counts.

The modern, streamlined case and handset have clean, functional lines.

Transmission has been brought to "Hi-Fi" levels. The N-541 Telephone has an improved anti-sidetone circuit and a higher gain which provides clear, natural transmission over long loops. An automatic compensating network insures the same clear, well controlled level on short loop transmission.

**SUBSCRIBER SATISFACTION WILL BE GREATER WHEN YOU STANDARDIZE WITH**

## NORTH N-541 TELEPHONES

**ALSO AVAILABLE IN COLOR**

## NORTH ELECTRIC COMPANY

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## BIG YEAR FOR REA

LAST MONTH REA reported loans during fiscal year just ended amounted to $81 million for rural telephones. 1956 rural telephone loans will bring initial telephone service to about 76,500 rural subscribers and improved dial service to approximately 100,000. It is highest loan total for any year since program began in 1949

REA ESTIMATES TELEPHONE LOAN NEEDS for the fiscal year at $80 million. Funds available amount to $131.3 million. This is made up of $30.3 million in carryover funds, $1 million in anticipated rescissions and $100 million in new authorization. Of latter amount, $20 million is being placed in reserve to be drawn upon as needed.

## RATES

THE NEW YORK Public Service Commission accepted tariff amendment filed by Crown Point Tel. Co., designed to increase rates by estimated $1,980 annually. Company serves about 380 telephone stations in and near Crown Point. Under its new tariff, monthly rates will be increased as follows: individual residential service, 75 cents; 10-party rural residential service, 25 cents; individual business service, $1.00; 10-party rural business service, 50 cents.

THE NEW YORK Public Service Commission accepted tariff amendment filed by Nicholville Tel. Co., designed to increase rates for dial service by estimated $1,750 annually. No change in rates for magneto service is involved. Company serves about 750 stations in and near Nicholville and Winthrop. Of these, about 450 are served through Winthrop exchange which was converted to dial operation in 1953. Plans are now under way for conversion of Nicholville exchange from magneto to dial operation next spring. Under its new tariff, monthly rates to subscribers at Winthrop will be increased by 50 cents for individual residential and business lines and rural business lines; 25 cents for residential party lines and 75 cents for two-party business lines. The new rates will apply to the Nicholville exchange after it has been converted to dial operation.

HOME TEL. CO., Smithfield, La., received permission to raise its rates. Company expects to have return of 6.22 per cent on its investment with increased rates, according to Lt. Gen. E. S. Stephens, who represented company at hearing. Rate raise will mean additional gross revenue of $22,798 a year, he said . . . Kansas Corporation Commission denied rate increase requested by Kansas State Tel. Co., Galena. Commission granted company permission to continue present rates put into effect as temporary increase in Feb. and ordered company to begin improvements in equipment, service and subscriber relations before requested rate hike will be considered again by commission.

LOUISIANA Public Service Commission ordered Southern Bel. Tel. & Tel. Co., to cut public pay station rates from dime to nickel and directed 20 per cent reduction in all Louisiana intrastate long-distance toll rates, effective Aug. 1. Cut in pay station rates is effective Sept. 1. Action was taken in formal opinion and order issued to back up commission ruling announced last month ordering rate cut of $3,940,000 yearly in Louisiana. Commission also denied a Southern Bell request for rate increase of over $6,000,000.

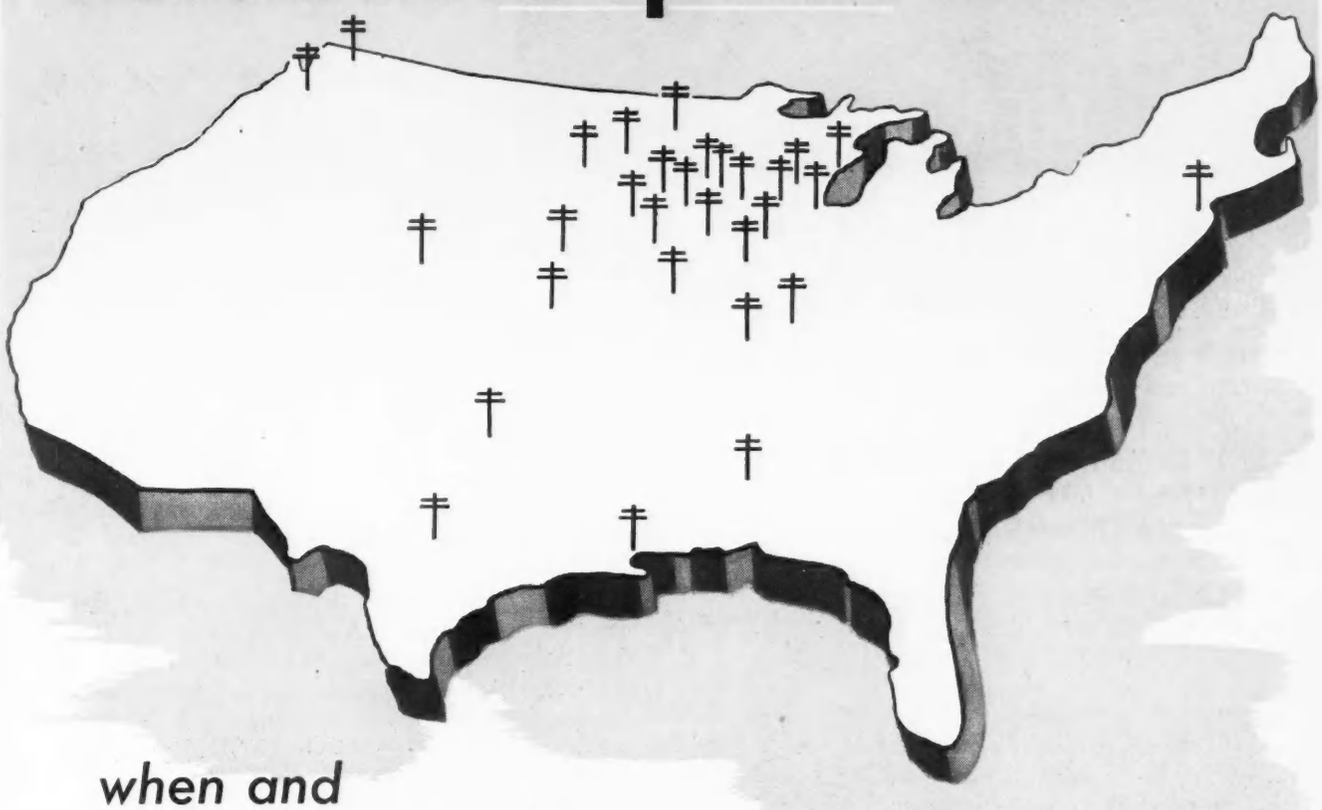
## AUTO ACCIDENT REPORT

RESULTS OF A NEW Bell system report, "Motor Vehicle Accident Summary," show that 38% of the System accidents during the first three months of 1956 occurred at intersections. Another 38% involved collisions at locations other than an intersection, about 8% each were caused by backing and entering or leaving a parking place and nearly 4% were of a non-collision nature such as running off the road or over-turning. The remainder were from miscellaneous causes, such as being struck while parked.

## NEW OWNERS

N. C. UTILITIES COMMISSION approved sale of Goshen Tel. Co., in Wilkes County to Wilkes Tel. Membership Corp. for $400 . . . . Houlton (Minn.) Rural Tel. Co., one of the oldest Independent telephone companies in the Stillwater, Minn. vicinity has been sold to Wisconsin Tel. Co. The Houlton Rural Tel. Co., a non-profit stock company, was incorporated in 1909 and since then has been serving village and rural patrons in the township of St. Joseph. Its present officers are: Pres. P. C. Schafer; Directors, Milton Meinke and John Strese; Sec.-Treas., F. G. Anderson. Mr. Anderson has served as secretary-treasurer of the company for 34 years . . . . Ohio Utilities Commission granted application of the Citizens' Tel. Co., Coolville, to serve subscribers in

# KEYSTONE Telephone Wire . . .



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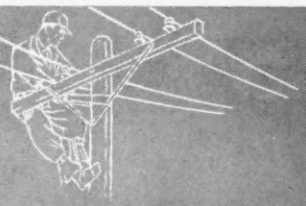
# Industry NEWSLETTER



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the Chester area of Meigs County. General Tel. Co. of Ohio, which had also applied to serve the area, was granted permission to serve customers south and west of the village . . . . Sale of telephone plant at Ware Shoals, S. C., to the Ware Shoals Tel Co., a new firm, has been approved.

## WEST COAST TEL. ANNOUNCES PERSONNEL CHANGES

G. E. KRIEGER, vice pres. of West Coast Tel. Co., Everett, Wash., last month requested that for personal reasons he be relieved of his duties. Ray Dalton, general manager of the company said Mr. Krieger will be retained by the company as a consultant.

IT WAS ALSO ANNOUNCED by Mr. Dalton that James L. Morrison, secretary-treasurer of the Nebraska Telephone Association, has accepted a position with the West Coast Tel. Co., as director of general information.

MR. KRIEGER IS WELL KNOWN throughout the Independent telephone industry. He has been with the West Coast Telephone Co. since 1928 and has held various executive positions. He was elected a vice president of the organization in 1953.

MR. MORRISON was raised in the atmosphere of the Independent telephone industry. His father is vice pres. and general manager of the Iowa Continental Telephone Co. His background also includes service with the Eighth U. S. Air Force in England during World War II. In addition to his telephone experience he is a graduate attorney at law. Mr. Morrison's past experience and training includes a knowledge and ability in organizational and educational matters which will be valuable to the company.

## EXPANSIONS

OHIO CENTRAL TEL. CO., completed $90,000 dial conversion project at Utica and Home, Ohio . . . Galva (Ill.) Tel. Co., will convert to dial by June 1957 . . . Carter County Tel. Co., erecting new dial exchange building at Van Buren, Mo., Building is part of $50,000 project . . . Grand River Mutual Tel. Corp., Princeton, Mo., announced plans for construction of $70,000 office building . . . General Tel. Co., of Mich. started $350,000 dial conversion at Imlay City.

NEW DIAL EQUIPMENT, serving approximately 600 customers in a 150-square mile area in Kansas and Oklahoma, will be installed at Edna, Kans., by the Edna Tel. Co., H. W. Froman, pres. of the company, has announced. The new system is expected to go into service next April. Froman said his company will rebuild its lines, and will have 170 miles of pole line. The new dial equipment will be installed in the company's present telephone headquarters at Edna . . . Low bid of $31,556.-27 has been accepted by Wilson (Kans.) Tel. Co., for dial equipment and installation at exchanges in Sylvan Grove and Lucas, Kans.

GRAND RIVER MUTUAL TEL. CORP., Trenton, Mo. placed its dial system in operation at Lineville, Ia. Exchange costing over $150,000.00 is a portion of $5,000,000.00 rebuilding program in which Grand River is engaged . . . . Western Carolina Tel. & Tel. Co. completed dial cutover at Murphy, N. C. Lynn Garibaldi, pres. of Western Carolina reported his firm has put half a million dollars into the Murphy system since Dec. 31, 1952.

## HIGHLIGHTS

BLUE VALLEY TEL. CO., Oketo, Kans., has been incorporated and is applying for a $275,000 REA loan to buy stock of companies in area. Plans are to include Axtell, Centralia, Summerfield, Vermillion, Vliets, Oketo, and Home City. E. C. Koenēke of Bremen is pres., of new firm . . . Eustace L. Florance has been elected sec. & treas. of four Chesapeake & Potomac Tel. Companies operating in Washington, Maryland, Virginia and West Virginia. He succeeds R. V. Russell who retired July 1 after 40 years service in Bell System . . . Robert D. Griswold has been named district manager of the Princeton, Ill., exchange group of General Tel. Co. of Ill. James C. Higgins, commercial representative in charge of Lawrenceville exchange succeeds Griswold.

## COL. C. W. GOTTRY DIES

COL. C. W. GOTTRY, 57, vice president and general manager of the Missouri Telephone Co., Columbia, Mo., died at Pine City, Minn., July 28. He and Mrs. Gottry were vacationing in Minnesota and visiting Col. Gottry's family. Death was caused by a heart attack. Colonel Gottry had suffered an attack in Dec., 1954 but had been in good health.

COLONEL GOTTRY had served as a director of the Missouri Telephone Association for many years. He was the first president of the Theodore Gary Chapter of the Independent Telephone Pioneer Association, having been active in organization of the chapter in 1946.

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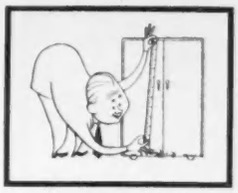
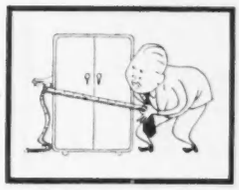
## F-40 XY® 40-line PBX...

*a BIG revenue-builder in a small package*

Now you can "sell" PBX service to many business firms which badly need a compact internal dial system with central office connections, but lack space for cumbersome bays, power supply, batteries, etc.

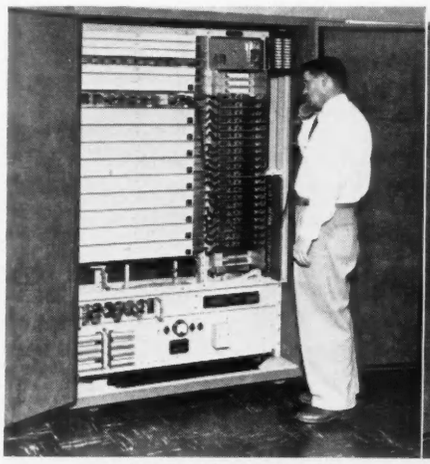


It's only this high (6'4")

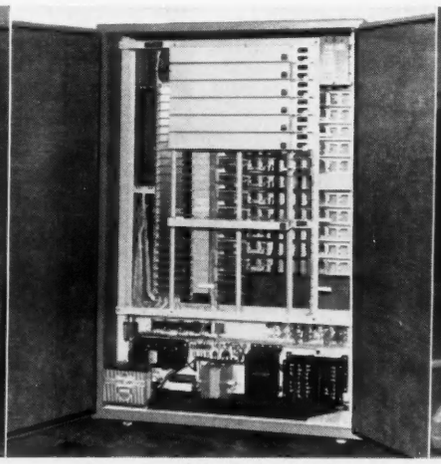


It's only this wide (4'1")

It's only this deep (2')



Front interior of cabinet, with a test under way. Note the thick Fiberglas acoustical insulation on the doors and sides . . . it's quiet!



Rear view of the F-40 cabinet shows power supply in base with stand-by battery. Completely self-contained.

Cordless turret approximates the size of a modern typewriter. Furnished in office gray with attractive color-code keys. Attendant's telephone furnished in matching gray with or without standard operator's headset.

The F-40 cabinet, with its capacity of up to 40 lines and 10 trunks, needs only 8 square feet of floor space. It is installed simply by connecting telephone cable leads and plugging the power supply into a standard 110-volt AC outlet.

The attendant's cabinet, no bigger than a typewriter, uses keys for answering and completing calls. The attendant's phone is matching gray. All other stations can be equipped with standard instruments.

For selling aids and further details on the revenue-boosting F-40, contact your nearest Stromberg-Carlson office.

It looks like a regular office wardrobe

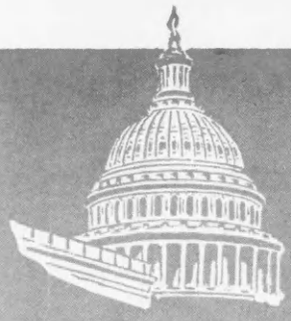
It rolls anywhere

**STROMBERG-CARLSON COMPANY**

A DIVISION OF GENERAL DYNAMICS CORPORATION

**Sales Offices: Atlanta 3, Chicago 6, Kansas City 8, Rochester 3, San Francisco 3.**

# Washington NEWSLETTER



## OPERATION ALERT

GOVERNMENT OFFICIALS are highly pleased by the performance of the nation's telecommunications facilities during the 1956 Operation Alert civilian defense exercise.

THEY WERE PROVED capable of withstanding the effects of nuclear bombing and continuing to furnish essential services in such an emergency, according to observers who participated in the nation-wide exercise, the most extensive test so far of the nation's capabilities to face up to the extreme after-effects of a wide-scale bombing attack.

COMMUNICATIONS, SEVERELY tested during the exercise, were under constant surveillance by a team of industry executives from the various companies in the United States and government officials charged with responsibilities in this field.

THE DEVELOPMENT OF Operation Alert presented communications problems which would be encountered in the various phases of damage to existing facilities, the arranging of re-routes around damaged areas, and the restoring of communications on a carefully prearranged plan of priorities designed to provide for "first things first," yet visualizing limited services, for the everyday user, that would be expanded to normal as restoration became more complete. Every factor in the field — land wire telephone and telegraph, broadcasting, and the international services — was under analysis for the duration of the week-long alert by teams made up of the men in government and industry best qualified to meet each individual problem and solve it as they operated from a secret relocation center which was staffed after warning was given of an enemy attack.

OTHER THAN THE success of the test communications-wise, the most significant thing about Operation Alert from an operational standpoint was the manner in which it was indicated communications operations would be directed in the event of a real outbreak of hostilities. The theoretical exercise proceeded in the same way as would be the case in the event of a real attack. Within 24 hours after the exercise began, Defense Mobilizer Arthur S. Fleming announced the appointment of Maj. Gen. Jerry V. Matejka, (USA, Ret.), Assistant to the Director of ODM for Telecommunications, as War Communications Administrator and redelegated to him the communications powers of the President under the Communications Act of 1934.

THE ESTABLISHMENT of the War Communications Administration and appointment of an Administrator to head the newly-created organization placed in a single person the responsibility for the management of US communications in such an emergency. His responsibilities included the assigning of radio frequencies to government radio stations; directing restoration of wire and radio communications facilities; safeguarding the security of these communications; suspending or amending the rules of the Federal Communications Commission, as necessary; controlling radio and wire communications facilities; and authorizing their use or control by any federal agency in order to assist the uninterrupted flow of essential information.

ACCORDING TO AN ODM report of its analysis of the alert the "extensive by-pass systems recently installed by the Bell System were effective in providing for essential communications." At the end of the alert it was stated that in general there were adequate communications to handle essential business despite the assumed wide-scale "bombing." In addition, areas considered to be targets were shown to still have communications on a restricted basis through operations in the fringe areas. While the Bell System's by-pass program has not been totally completed, an analysis, assuming it was fully in existence, demonstrated the ability of the by-pass system to withstand an attack of the sort visualized, substantially without damage. Although an apathetic public for the most part considers these annual civilian defense exercises as a "game," officials charged with carrying them out as a preparedness measure look upon such exercises in a deadly serious vein and industry officials who participate carry out their assignments in the same mood as if it were the real thing.

THE ESSENTIALITY OF communications makes a test of these facilities, one of the most important of the tests and top leaders from industry joined in the 1956 exercises at the relocation center to carry out the successful program.

IN A STATEMENT dealing with communications that was issued at the conclusion of the test, ODM said: "This

is announcement
rst appeared in Te-
phony, August 28,
954 to mark 4 years
f service for poly-
hylene-insulated tel-
phone cable. It was
peated a year later
mark 5 year's serv-
e. Now, it's still time-
... ready to mark

*Another year of trouble-free service!*

# ~~FIVE~~ SIX ~~FOUR~~-YEAR HEAD START ON LOW MAINTENANCE COSTS!

In 1950, 4½ miles of this 26-pair, 19-gauge aerial cable were put into service between Cooperstown and Cherry Valley, N.Y. The object was to lower maintenance costs – *polyethylene* plastic insulated the cable's conductors and formed an integral part of the sheath.

Since then, miles of similar cable have been installed throughout the country – growing evidence of the success of this construction. The polyethylene-insulated conductors withstood 10,000 volts in factory tests, compared to 500-700 volts for paper-insulated types, so lightning hazards are minimized. Since polyethylene is moisture-resistant, the circuits can keep working even if water enters the cable through an accidental break.

BAKELITE Brand *Polyethylene is an ideal material for such wire covering applications. Its extremely light weight makes wire and cable easier to handle. It has excellent toughness, flexibility, and tensile strength. It's resistant to corrosive atmospheres, oil, grease, alkalies, and most strong acids.*

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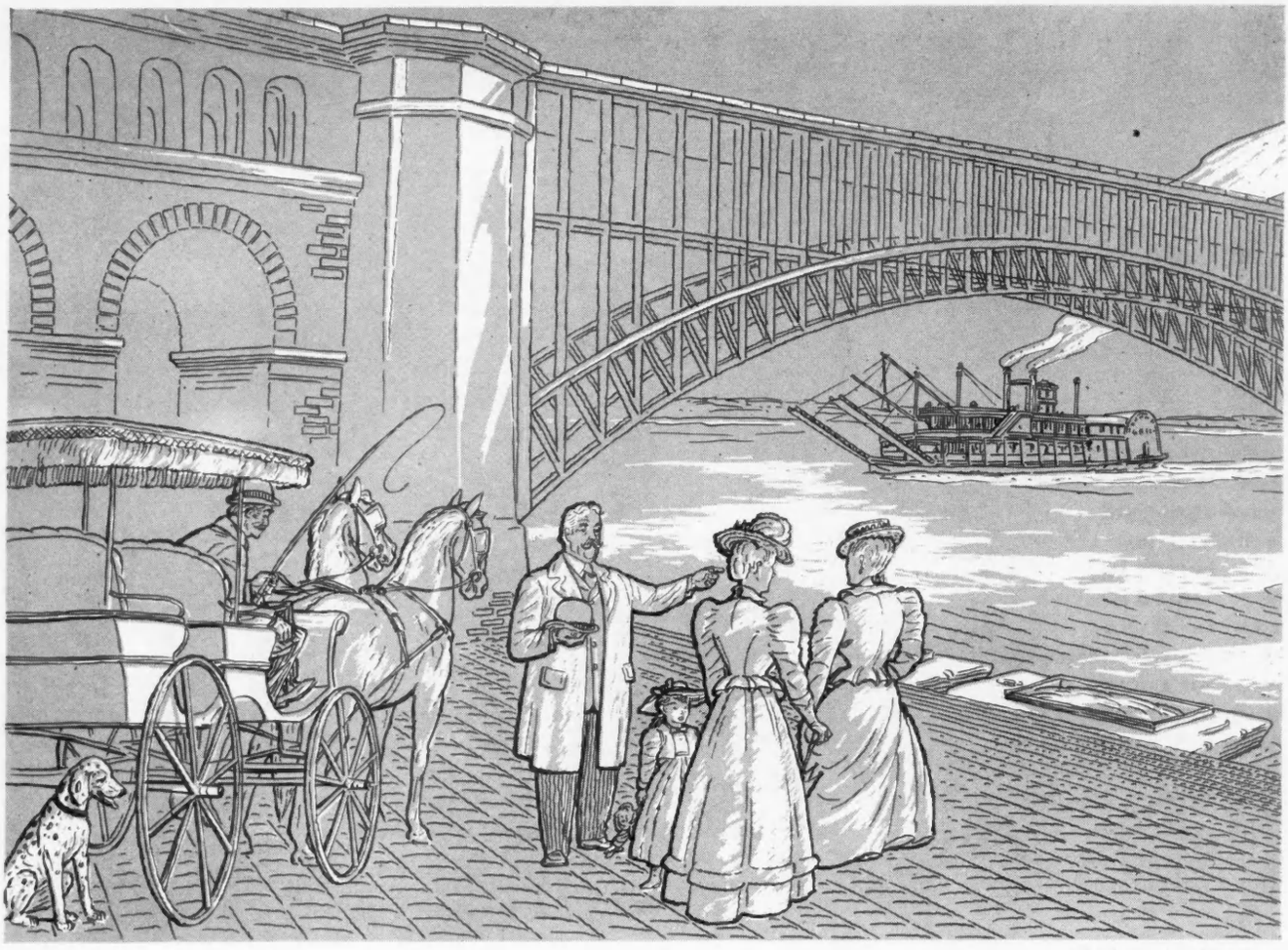

St. Louis, 1897

# 58 years isn't very long–

*not when you consider what has been done*

With companies, like people, it's not just how old you are but what you've done with your time that earns your rating. Without boasting, we think we've rung up a pretty solid record, working *with* and *for* Independent Telephony.

In 1896, with 20 years of telephone pioneering behind him, Milo Gifford Kellogg was commissioned to build and install in St. Louis the largest manual switchboard ever installed in a one exchange room up to that time.

Our company was founded and already moving ahead for the Independents in 1897. Other big installations came quickly . . . New York, Buffalo, Cleveland, Indianapolis. More than 9000 Kellogg Switchboards were built and installed in the next 17 years!

It was only the beginning. We believe that greater accomplishment has been the long list of "firsts" we were able to make available in common cause with the Independents. The *first* cradle type telephone, the *first* solid-back transmitter, the "four-frequency" harmonic telephone system and thirty or more other revolutionary advances, including the Crossbar, *developed* and *created* by Kellogg.

Now, through our partnership with IT&T we have gained vast new research facilities and the ability to serve you even better, with even finer equipment.

This we pledge to do, so that Kellogg and the Independent Telephone Industry can stride ahead with ever improved service!

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**KELLOGG SWITCHBOARD AND SUPPLY COMPANY**

*A Division of International Telephone and Telegraph Corporation*

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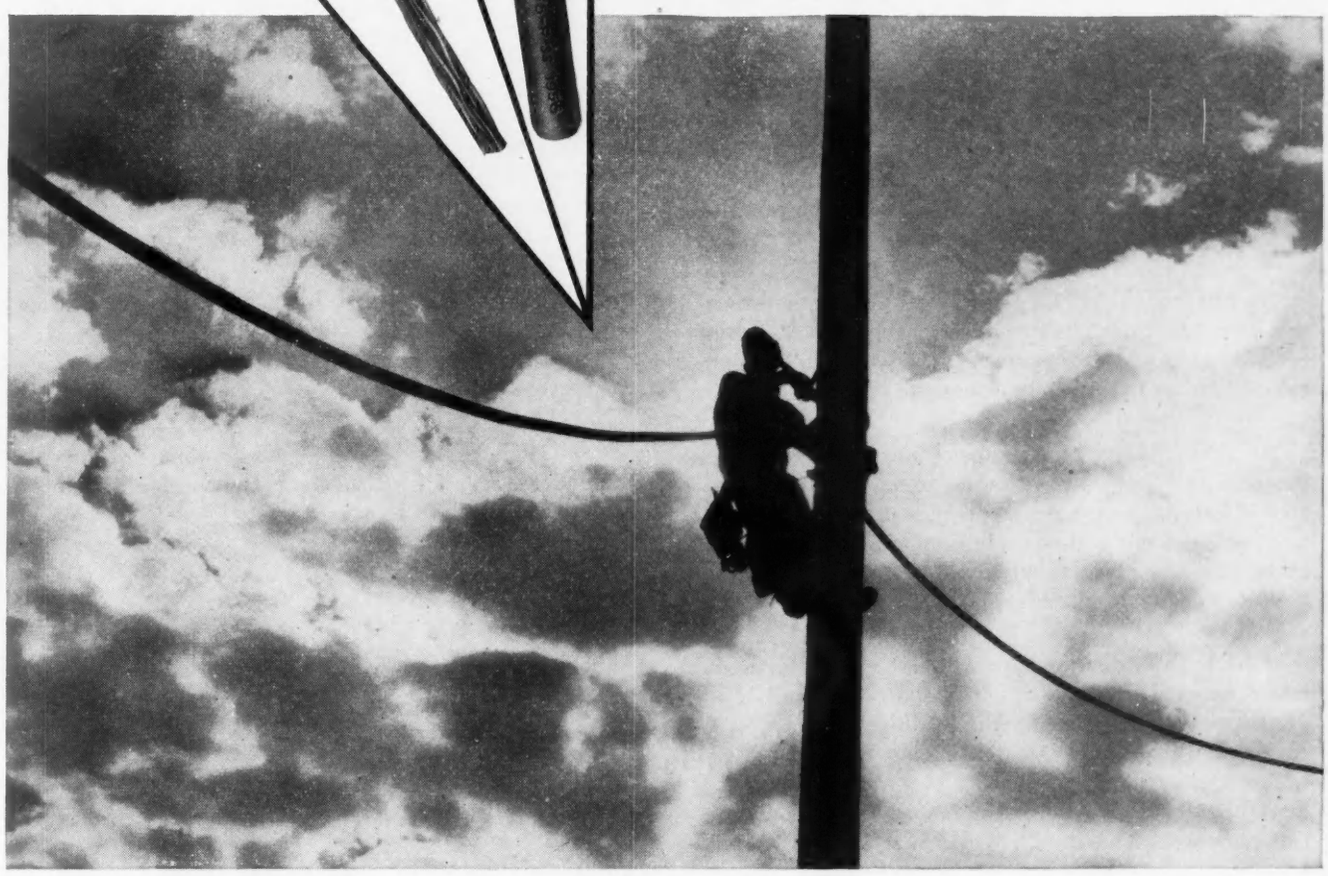
*from KELLOGG . . . . . BETTER PRODUCTS for BETTER INDEPENDENT SERVICE*

# Choose the right *self-supporting* cable for each job



Substantial savings are possible on new construction and cable plant extensions with the use of Ankoseal Self-Supporting Cable because of the elimination of the messenger and associated hardware as well as the reduced man-hours required to string the strand and attach the cable. The lightness and flexibility of the cable will also reduce installation time.

**Rural Distribution Wire:** *Without shield or jacket, the individual conductors are insulated with polyethylene plus a PVC outer covering made in three, six, eleven and sixteen pairs. The fully color coded pairs are cabled around a polyethylene insulated, high strength, 109 galvanized steel support wire. Suitable for fast, low cost construction to provide temporary service or cable relief.*

**Type 775-P-SS:** *This is the standard Ankoseal self-supporting cable, fully shielded and PVC jacketed for permanent installation. Made in six, eleven, sixteen and twenty-six pairs. Shielding protects against induced noise. The PVC jacket provides uniform transmission characteristics under all weather conditions. Elimination of the messenger speeds installation and reduces costs.*

*Technical service on specific installation requirements is available upon request from Ansonia.*

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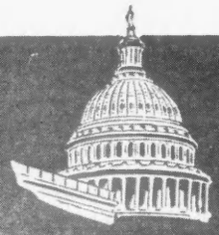
# Washington NEWSLETTER



*(Concluded From Page 14)*

combination of industry and government communications people who represented a cross-section of some of the best ability and communications talent in the country today, was an example of American teamwork without which the resources of our total communications facilities could not be used to best advantage in the event of war or enemy attack.

"RESPONSIBILITIES of the FCC and of the executive branch of the government for frequency matters was centralized in a joint frequency coordination and assignment group operating from a separate location . . .

"IN APPRAISING the results of the operation, it must be concluded that only with the combined and coordinated efforts of government and industry could the tremendous communications requirements, which would be associated with a condition of enemy attack, be met with any degree of success.

"ONLY THOSE who have actually worked with the entire national communications resources and all of its varied media can appreciate the flexibility and degree of coverage which can be marshalled to meet conditions where a segment or portions of everyday facilities are disrupted. It was evident that industry itself, through the experiences associated with World War II, and in order to meet other emergencies, such as hurricanes or floods, had already taken many protective steps to insure continuity of communications through the utilization of alternate routes, provision of emergency power, relocation of operations at points outside the immediated pertion of operations at points outside the immediate perimeter of large cities.

"IT WAS ALSO EVIDENT in the development of the problem play, which had for a backdrop the destruction and devastation presumed by a simulated attack, that only by our community type of approach in which by means of intelligent application first things were taken care of first in the use of our national telecommunications resources, could the nation have available the communications necessary to a national recovery. The application of this principle and the spirit with which sacrifices were made in order to meet the national emergency as well as the greatly increased volume of the play spelled out the great advances . . . "

## EXCISE TAXES

IT WAS AN UNUSUAL legislative procedure that was adopted on the House side when Rep. Aime J. Forand (D., R. I.) introduced a 400-page bill in the fading days of the second session of the 84th Congress that incorporates into legislative language excise tax technical and administrative revisions that have been approved by the House Ways & Means Committee.

WITH ONLY A FEW DAYS remaining before Congress was to adjourn, the bill had no chance of getting action at this session. But the aim was to get such a bill out and then offer an opportunity to interested parties to comment on it before the 85th Congress convenes.

COMMUNICATIONS EXCISES are a part of the voluminous bill on which a subcommittee headed by Representative Forand plans to start hearings in November. Others on the committee include: Representatives Herman P. Eberharter (D., Pa.), Eugene J. Keogh (D., N Y.), Frank M. Karsten (D., Mo.), Albert S. Herlong (D., Fla.), Thomas A. Jenkins (R., Ohio), Noah M. Mason (R., Ill.), and Hal Holmes (R., Wash.).

AS WRITTEN, the bill provides in the field of communications a 10% tax rate on general telephone service, toll telephone service and wire mileage service, and an 8% tax on wire and equipment service.

THE 10% TAX on general telephone service applies to any fixed or mobile telephone or radiotelephone connected to an exchange; the toll telephone tax applies to any toll calls payable within the United States; the tax on wire mileage service applies to any leased wire or radio circuit service; and the levy on wire and equipment service applies to stock quotation and information services, burglar alarm or fire alarm service, and similar services.

## CWA LEADER RETIRES

A VETERAN COMMUNICATIONS labor union official has resigned his post because of ill health. John J. Moran, a Vice President of the Communications Workers of America since 1949 and a pioneer in the communications industry labor union movement, concluded his services with the CWA and has been succeeded by Ray Hackney, formerly Assistant to the President of the Union.

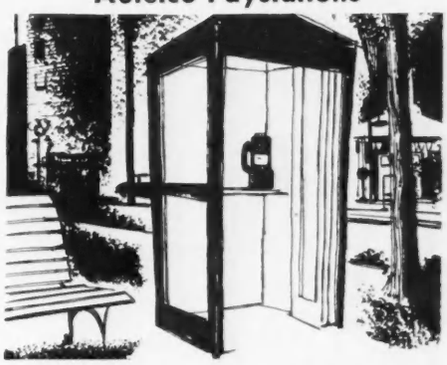
Mr. Moran had been responsible for the organizing activities of the union. An early organizer of the Order of Railroad Telegraphers, he entered telephone employment with the AT&T Long Lines Department in 1929 and soon became active in telephone union work.

# Want Revenue Rolling In Like This?

You'd be surprised how many calls people think of making when you provide convenient Autelco Paystations. Housewives out shopping, salesmen, tourists, *everybody* calls—and the revenue—both local and toll—rolls-in!

Successful telephone men who know pays'ation business recommend installing Autelco Paystations at busy intersections, popular drive-ins, and other proved-worthwhile spots. They also recommend brightly-colored booths and big, BIG signs. Write for Circular 1842-T, "How to Make Paystations Pay." Address: *Automatic Electric Sales Corporation*, 1033 *W. Van Buren St., Chicago 7. Or call HAymarket* 1-4300.

**Install Autelco Paystations**

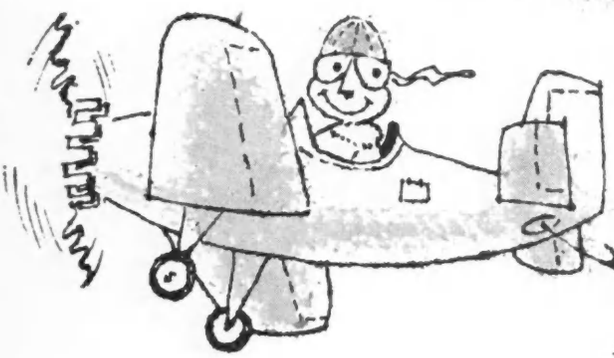


**They pay right around the clock, outdoors.**

**AUTOMATIC ELECTRIC**

ORIGINATORS OF THE DIAL TELEPHONE

# IT'S KELLOGG FOR



You're sure of top-flight quality with Kellogg line supplies . . . every item has been put through the most rigid performance tests and delivery is fast . . . Kellogg has 7 warehouses and more than 100 distribution points across the nation.

**Lighter, Last Longer, Cost Less to Install.** New Roebling telephone cables and wires are completely insulated and sheathed in modern plastics. Flexible and easy to handle. Up to 404 pair, in sizes 19, 22, or 24 A.W.G. conductors. JOHN A. ROEBLING'S SONS, CORP.

**The New RectiRinger** consists of a time-tested Raytheon Recti-Filter to supply humless, regulated DC power for the switchboard, and an adaptation of an exclusive saturable core reactor to supply 20-cycle ringing power. Made by RAYTHEON MFG. CO.

**Save Three Ways** . . . on materials, man-hours, and maintenance with INDIANA STEEL & WIRE CO.'s Crapo HTL-85 and HTL-135 Line Wire. Galvanized by the famous Crapo Galvanizing Process, protected with heavy, ductile coating of zinc.

**Outstanding Battery Performance** is yours when you choose Gould Plante Batteries. Thick grooved, pure lead positive plates give many years of trouble-free service! Made by GOULD-NATIONAL BATTERIES, INC., a leader in their field. They're the finest money can buy.

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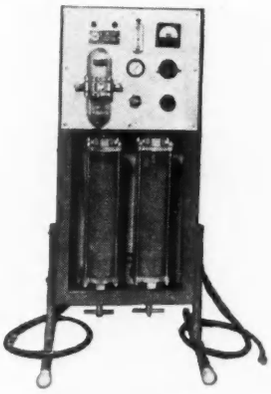
# ORTOP-FLIGHT LINE SUPPLIES



**Air Compressor Dehydrator** for supplying dry air to aerial and underground cables. Supplies up to 40 cables. Individual air flow indicators for each cable. Both Automatic and Manual Units are available.
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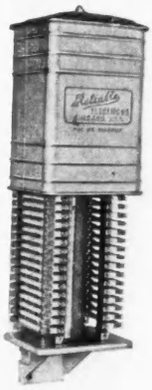

**Linemen Know the Difference!** With RELIABLE ELECTRIC CO.'s B-27 Cable Terminal, all drop connections are made in front . . . installation is easy! "Reliable" Sawtooth Discharge Blocks dispel static discharges without unnecessary grounding of the line.

**Preformed Splices** for damaged line wires and messengers or new construction. Easy to install, no tools required — simply wrap the splice around messenger or conductor. PREFORMED LINE PRODUCTS COMPANY.

**For Plastic Cable Splicing** use these three REA-approved Bishop Tapes. *No. 125 Filler Tape* fills voids; *Bi-Seal* is the strong moisture barrier; Bishop *Vinyl* is the final abrasion-resistant covering. Products of BISHOP MANUFACTURING CORP.

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## General of Ind. Names Van de Vusse Operating V. P.

LAST MONTH L. H. Meyer, president of General Telephone Co. of Indiana, Inc., Lafayette, announced the election of J. F. Van de Vusse, president of Illinois Telephone Co., Bloomington, to the position of operating vice-president and board member of General Telephone of Indiana.

Mr. Meyer also announced that: (1) H. R. Christianson, of Lafayette, becomes vice-president of General Telephone of Indiana and continues as a member of the board; (2) W. A. McCullour, Muskegon, Mich., currently controller of General Telephone Co. of Michigan, becomes secretary-treasurer of General Telephone of Indiana, on August 16 and (3) H. G. Counsman, of Lafayette, General of Indiana's secretary-treasurer, will, on the same date, become director of industrial relations for the Hoosier company.

Mr. Van de Vusse, a native of Allegan County, Mich., has had 26 years' experience in the telephone industry. He was connected with the Tri-County Telephone Co., South Haven, Mich., for 13 years. Later duties consisted of work as assistant vice-president for Telephone Services, Inc., management consultants in Fort Wayne, Ind., general manager of the Union Telephone Co., Owosso, Mich., and three years as president of the Illinois Telephone Co., Bloomington.

Mr. McCullour served as assistant controller of General Telephone Corp. from February, 1951, to July, 1952, at which time he was made controller of General Telephone Co. of Michigan. Before joining General Telephone System, he had been treasurer and chief accounting officer of Central Ohio Light & Power Co., and earlier had been a member of an independent public accounting firm. He served five years in the Ninth Infantry Division in World War II as finance officer. He is a graduate of Ohio State University and a member of the Elks.

**JONN A. AIGLER has been named as general commercial superintendent of the Northern Ohio Telephone Co., Bellevue, Ohio. Mr. Aigler succeeds the late E. F. Woodward. He joined Northern Ohio Telephone Co., in 1948 as a commercial representative and for the past few months has been acting commercial superintendent.**

Mr. Counsman began his telephone service in 1933 as revenue accounting manager in the company now known as General Telephone Co. of Pennsylvania. Other telephone duties have included experience as district commercial manager in Erie, Pa., general commercial superintendent of General Telephone Co. of Illinois, Springfield, assistant publishing manager of General Telephone Directory Co., and he has been secretary-treasurer of General of Indiana since 1950.

## Canadian Telephone Financing Needs $3-Billion in 25 Years

THE CANADIAN telephone industry, which expects to spend over three billion dollars to expand facilities during the next 25 years, will obtain the major portion of this sum from Canadian sources, Thomas W. Eadie, president of the Bell Telephone Co. of Canada, and chairman of the Trans-Canadian Telephone System, predicted at St. Andrew's in New Brunswick, last month.

Addressing the annual meeting of the Investment Dealers' Association of Canada, Mr. Eadie said that the total investment of Canada's telephone industry in facilities is now about $1,500,000,000 with $200,000,000 being spent annually on new construction. The estimated expenditures of $3-billions in the next 25 years would almost triple the present investment.

"I see no reason why the major part of this vast sum should not be obtained from Canadian sources," Mr. Eadie declared. "This is surely a worthwhile field for Canadian endeavor. As Canada grows, expanded and improved telecommunications services are indispensable to meet the needs of business, of government and individual Canadians."

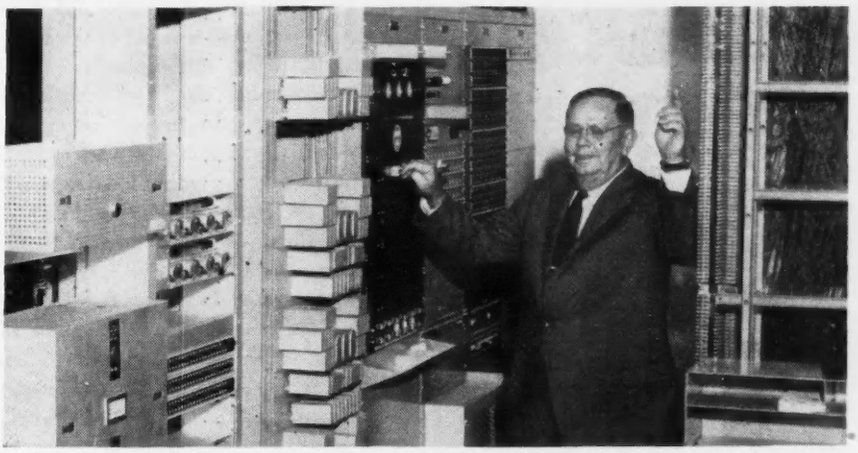
Growth in the telephone industry must be financed principally from outside the business and for the larger part of the industry this means

regular approaches to the Canadian investors, Mr. Eadie pointed out.

"In the past decade we have been responsible for more than a quarter of the common stock financing in Canada." he said.

The Bell president noted that one result of these stock offerings was to spread the ownership of the industry widely among the Canadian public. The Bell company is at present the property of over 125,000 shareholders, the largest number for any Canadian company.

Describing the scope of the Canadian telephone industry, Mr. Eadie said that there are over 4,000,000 telephones in Canada operated by some 2,800 separate telephone systems ranging from small co-operatives owned by farmers or municipalities to large corporations and systems controlled by provincial governments as in the three Prairie provinces. Canadians now make nearly half a million long distance calls every day, more than twice as many as 10 years ago.



**WILBUR C. KING, chairman of the Florida Railroad & Public Utilities Commission, throws switch to cutover Arcadia, Fla., exchange to dial operation. The cutover made Inter-County Tel. & Tel. Co.'s system 100 per cent dial.**

## Inter County Tel. Plans New Microwave System

THE INTER COUNTY Telephone & Telegraph Co., Fort Myers, Fla., serving 12 counties in South Central and Southwest Florida, announced recently that it is planning to construct one of the largest microwave radio relay systems in the Independent industry.

Long Distance traffic has increased so rapidly in the past few years in Southwest Florida, said J. N. Johnson, president and general manager of the Inter County system, that we must supplement our major toll routes with microwave facilities. In all three separate systems, consisting of seven stations and towers with 84 channels equipped initially will soon be started so that they can be in operation in late 1956 in preparation for the expected heavy toll demands of the coming winter season.

The Inter County company's Fort Myers Toll Center will serve as the hub of the three proposed microwave systems. A 200 foot self-supported tower will be intergrated into a new three-story building, which is already nearing completion in Fort Myers. This new building addition will house not only the new microwave equipment, but will also provide additional expansion for both local

**ROBERT R. LONG, district manager, Middle States Telephone Co., points out features of toll ticketing equipment used in Pekin, Ill. exchange to a group of interested visitors from abroad, touring the United States to inspect latest telephone developments. From left to right: MR. LONG; NELSON GALASSI, interpreter; RICARDO ARGENZIANA, managing director, Societa Telefonica Tirrena, (one of the telephone operating system in Italy); GEORGE BLACKBURN, managing director and R. F. STEHLIK, chief engineer, Automatique Electrique, S. A., Antwerp, Belgium; ETTORE AGOSTI, general manager, Societa Telefonica Tirrena; Air Vice Marshall A. F. LANG, staff coordinator and J. E. OSTLINE, staff engineer, Automatic Electric Co., Chicago; E. MANESCHI general manager, Autelco Mediterranea, S.A.T.A.P., Milan, JOHN ALDER, Middle States Tel. Co.**

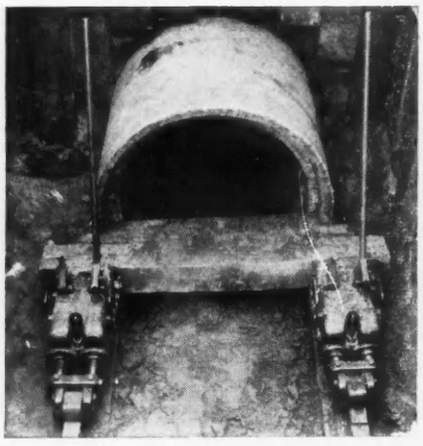
FAST, EASY WAY

TO INSTALL PIPE...

AT LOWER COST

**PUSH PIPE UNDERGROUND WITH A GREENLEE HYDRAULIC PUSHER**

Here's the simple, cost-cutting way to install underground pipe. Speed your jobs with a GREENLEE Pusher. One-man-operated, portable, simple to operate. No tearing up of pavement . . . eliminates extensive ditching, tunneling, backfilling, tamping, repaving. Cuts job time to a fraction. GREENLEE Hydraulic Pipe Pusher often pays for itself on first job. Two sizes — model shown above for pushing 3/4" to 4" pipe. Larger unit, below, for pipe over 4", concrete sewer pipe and large drainage ducts. Power pump (as shown above) also available for extra ease and speed of operation.



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2008 Columbia Ave., Rockford, Illinois

and Long Distance facilities. The Fort Myers Toll Center will have 45 switchboard positions in operation in late 1956, and with the additional new building space the toll office can be expanded up to 100 positions.

Microwave towers and stations will also be erected at LaBelle and Clewiston to form one system which will join with the Southern Bell Telephone & Telegraph Company's facilities to West Palm Beach and North for Inter-State traffic. Another system will extend North out of Fort Myers with towers and stations at Punta Gorda and Arcadia. This system will join with the facilities of the Peninsular Telephone Company at Tampa. The third Inter County microwave system will beam South with stations and towers at Bonita Springs and Naples. This southern system will help to bring additional Long Distance facilities to the fast growing resort area in and around Naples, Florida, and will provide for microwave facilities to Miami later.

"The construction of these microwave systems has presented us with many engineering problems to solve and has also greatly increased our 1956 budget," Mr. Johnson stated, "but we have sufficient faith in the future of the South Central and Southwest Florida area we serve to enter into these projects with great confidence. We now have the largest expansion program in our history underway with a record budget of over one and one half million dollars."

The Inter County Telephone System has now developed to the point where it serves 27,000 telephones in its Southwest and South Central Florida service area, and its 19 exchanges are 100 percent dial operated.

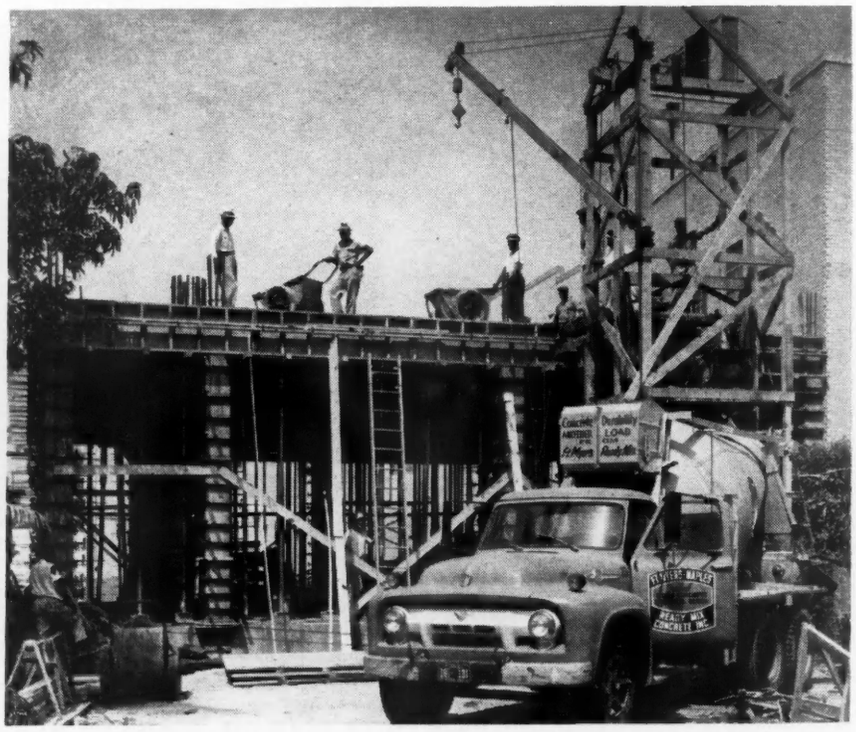
One of the Inter County company's major achievements recently has been the inauguration of two customer Direct Dialing networks serving 14 of its exchanges. The Inter County Telephone System has pioneered this service in Southeastern United States being the first telephone company to offer this type of service in the area.

## $15,745,000 Rate Boost Granted New York Tel.

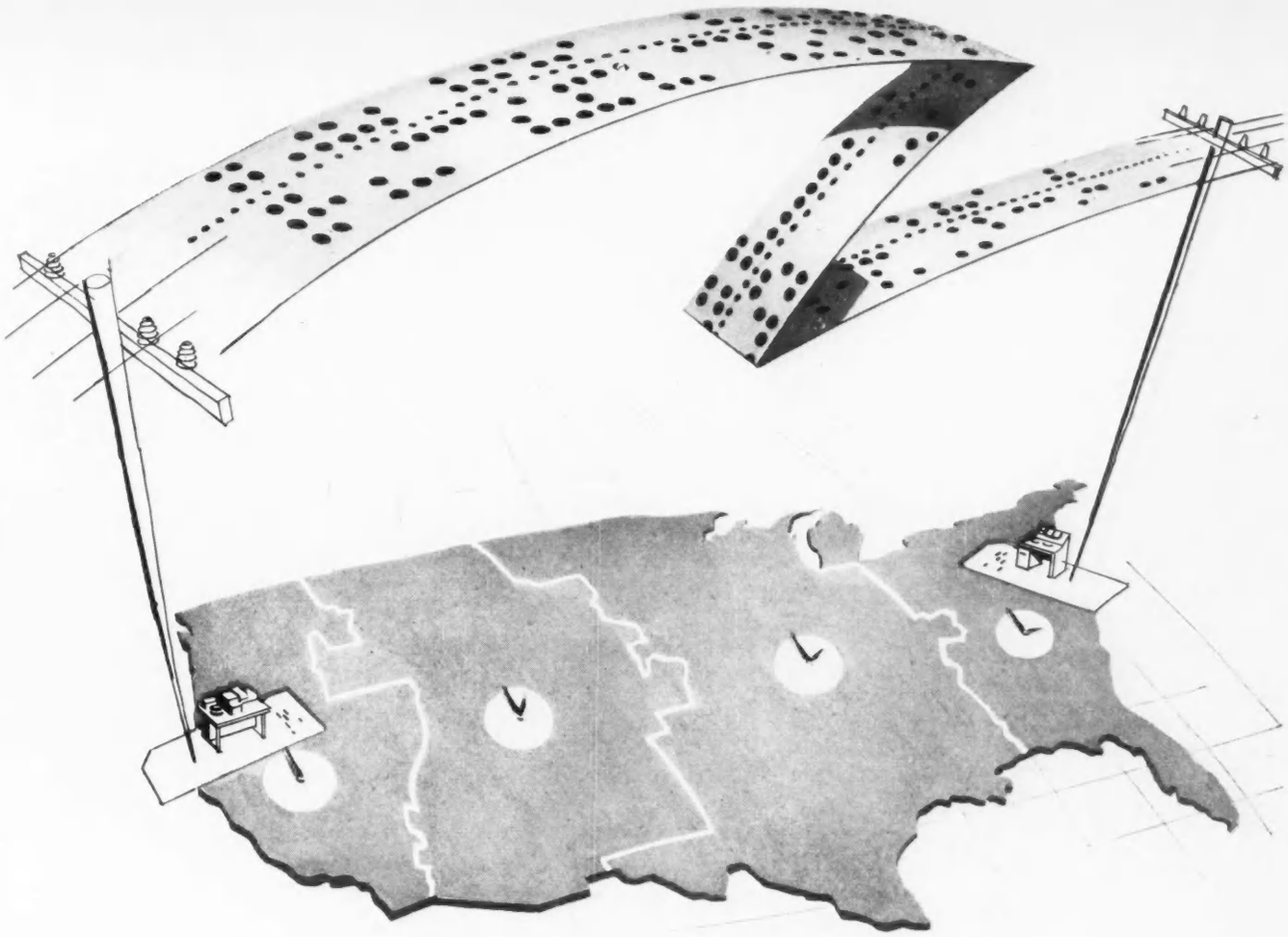
LAST MONTH the New York Public Service Commission authorized New York Telephone Co. to increase rates to its 4,500,000 subscribers by an estimated $15,745,000 annually.

The decision was based on a determination that "the company has reasonably proven its need for a rate increase" to provide revenues necessary to meet a recent wage boost of $17,000,000 a year and other increases in operating costs.

The company's new rates will re-



**Workers start construction of new three-story building at Fort Myers, Fla. Pres. J. N. JOHNSON of Inter-County Tel. & Tel. Co., reports the building will house additional toll and exchange central office equipment and will support a 200-ft. tower for the company's microwave system.**



# Send punched card data – by wire –

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With the IBM Card-To-Tape and Tape-To-Card Punches, communications companies have a new opportunity to perform an even greater service for commercial customers. At the same time, you'll gain increased circuit usage on a long-term basis.

**With this IBM equipment,** businessmen in your area can transmit and receive daily data on production, inventory and sales to and from remote locations. The IBM Card-To-Tape Punch transfers punched card data into your standard tape. This tape is then used for transmitting the data over commercial wires. At the other end of the line, across county or continent, duplicate punched cards are produced. From these new cards, management at remote distances gets the reports in time for effective management action.

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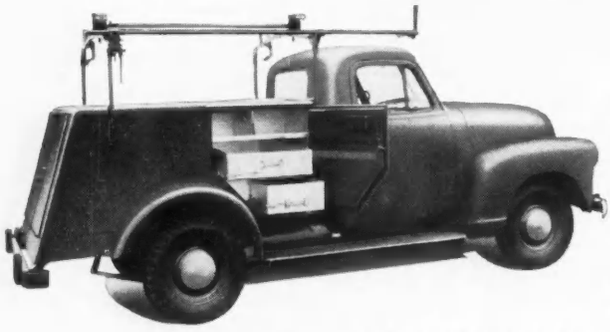

**Right side view showing extra large material and tool drawers. Convenient location facilitates quick inventory for everyday service work.**

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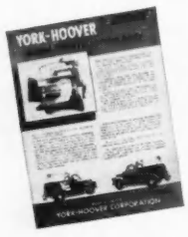


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sult in increases of 10 cents monthly for party-line residence and rural service; 25 cents monthly for individual line residence service, and 50 cents monthly for business main telephones.

Last year, the company applied to the commission for authority to increase rates by an estimated $34,380,000 under a "stop gap" tariff. After public hearings, the commission found that the company's revenue requirements at that time could be met through an increase estimated at about $8,000,000 annually. This was allowed and was affected by the upgrading of certain exchanges to rate levels appropriate to the increased number of telephones served through them and by making other minor changes.

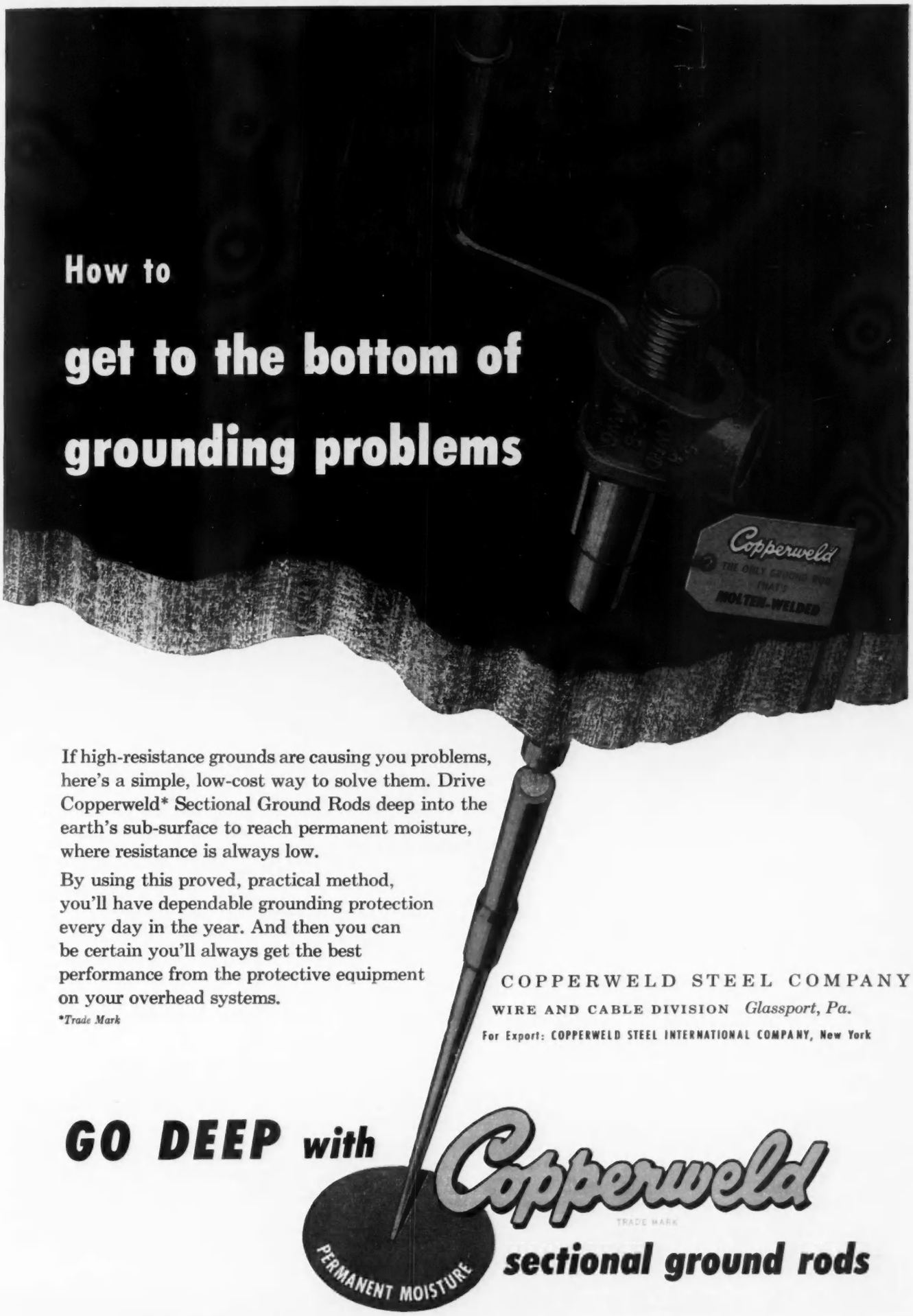
In authorizing that increase last December, the PSC said "if substantial increases in the company's items of cost occur in the near future not adequately provided for" in the tariff revisions then authorized, "the proceedings may be reopened for proof of such changes."

In May, the company petitioned for a reopening of that case and requested the rate increase now allowed. At hearings before Commissioner Glen R. Bedenkapp, company officials testified that wage increases recently granted to its employes aggregate more than $17,000,000 and that new depreciation rates authorized by the Federal Communications Commission further raise its annual operating costs by $2,700,000.

The amount of new revenue that would be necessary to offset the New York intrastate operating portions of these two costs increases was set at $15,745,000, the amount of the increase allowed.

An opinion adopted by the full Commission states that "support for the reasonableness of the proposal" is found in an exhibit introduced in evidence at the hearings which shows that the increase requested will provide the company an estimated return of a shade above six percent during 1956 if it were allowed. This estimate, the opinion notes, was based on the forecast of revenues and expenses which included actual operating results for the first quarter of the year.

In the reopened proceedings, the company asked for consideration of its revenue needs on the basis of the rate-making policy of the Commis-

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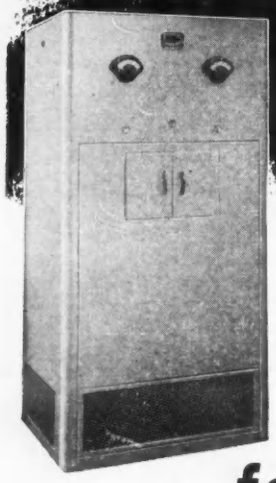

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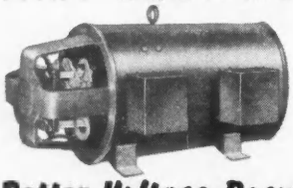

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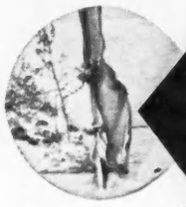

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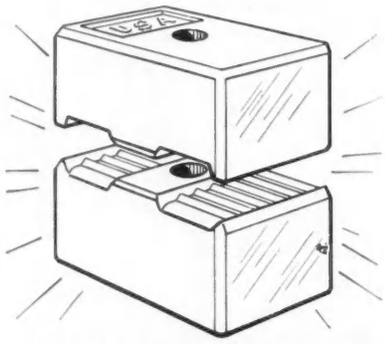

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sion, without prejudice to its appeal to court in the 1954 case, and without invoking its rights under the decision of the Court of Appeals last February requiring that the Commission accept evidence of and give consideration to estimates of plant reproduction costs.

The Commission's present decision is based on original cost less depreciation of properties used in providing service to the public which was the bone of contention in the litigation before the court last year.

Noting contentions advanced in opposition to the proposed rate increase to the effect that the company's estimates as to future earnings might prove incorrect, the Commission says in its opinion that "if the company's forecast is not borne out and earnings exceed a fair return, that matter can be considered at the proper time."

## Bremen Tel. Corp. Reports On $65,000 Expansion Project

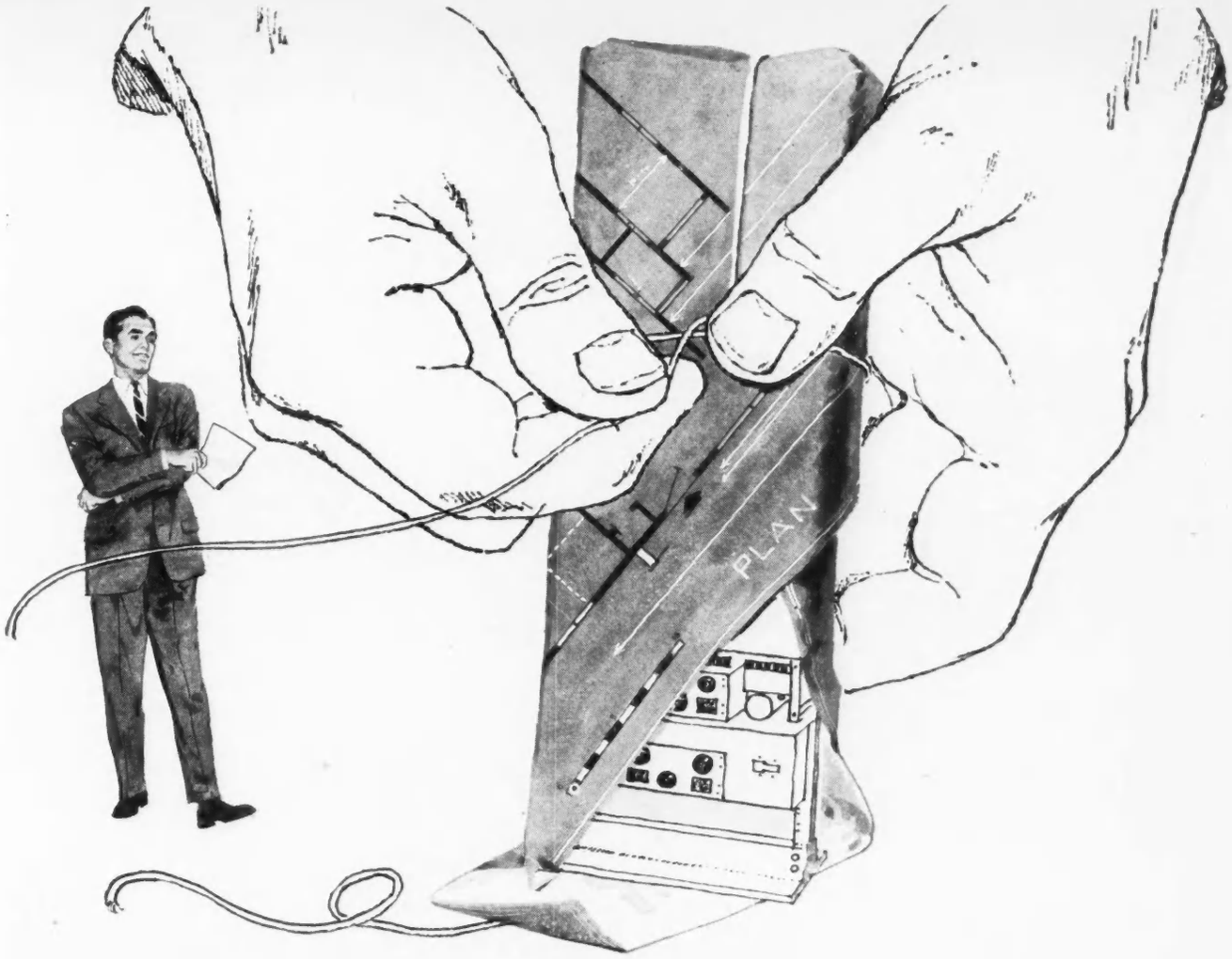
JULY 15 marked the climax of the $65,000 expansion program of the Bremen (Ind.) Telephone Corp. On that day the operator toll switchboard was replaced with new long distance equipment which permits faster routing of long distance calls to the South Bend toll operator.

The program is part of a long-range plan which Bremen Telephone Corporation has worked out to give subscribers the best in telephone service. Plans for the next few years, according to manager, Joe Novak, call for the installation of additional cable and new type telephones to give subscribers service which is tailor-made to their needs. An order has been placed for additional Central Office equipment to be installed in 1959 to take care of planned future growth.

At present there are 1550 Bremen subscribers compared with 591 at the end of 1945. The largest growth of the company has taken place in the last seven years.

## Markwell Mfg. Announces New Rustproof Staple

MARKWELL MANUFACTURING CO., Inc., 200 Hudson St., New York 13, N. Y., has announced production of a more penetrating and rustproof staple for the Markwell "L3" Telephone Tackers. The new staple is available in the Markwell "L3BC" Phosphor-Bronz (5/16" leg) and Markwell "L3DC" Phosphor-Bronze (9/16" leg) Staples.




# Now you can buy your long-distance and trunk circuits "BY THE PACKAGE"

Here's a new service—brought to you by two of the leading suppliers of communications equipment. Combining Lenkurt's "EF&I" (Engineer, Furnish, and Install) service with Automatic Electric "Follow-Thru Engineering", it makes it easy for you to have the carrier or microwave equipment you need, without overloading your engineering and installation staff. This new "package plan" is broad enough to handle complete projects, yet flexible enough to provide economically just the services you need.

Through this "package plan" you have the opportunity to contract for any or all of these services:

**1. Specific recommendations.** Experienced project engineers study your problems and draw up an economical, workable plan to meet present and future requirements. Then they make detailed equipment recommendations—*telling you why.*

**2. Detailed specifications.** Our engineers provide all the specifications you need to order your equipment.

**3. Expert installation.** Thoroughly trained specialists handle all the details of the installation, and turn the system over to you, ready for service, on the date promised.

**4. Office records.** You are furnished, for record purposes, the engineering details showing how this system was incorporated into your plant. You will receive field surveys, floor plans, cable and power connecting charts—all the records you'll need for future use.

**5. Staff training.** You are provided detailed equipment bulletins and line-up and operating instructions for your personnel. Engineers assigned to your installation will train your men right on the job, giving them the basic information necessary to understand and service the equipment.

**6. Follow-up counsel.** Even after your system is in operation, this same helpful service continues. When assistance on rearrangements or expansion is needed—or any time you can profit from experienced counsel—this service is available to you.

For complete details on how this "package plan" service can help you to quickly and easily get the long-distance and trunk circuits you want, *write:* Automatic Electric Sales Corporation, 1033 West Van Buren Street (HAymarket 1-4300), Chicago 7, Illinois.

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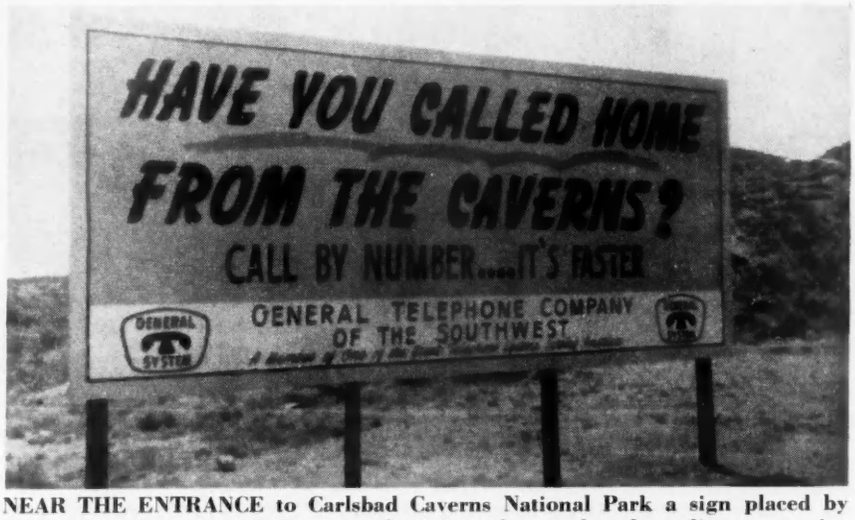
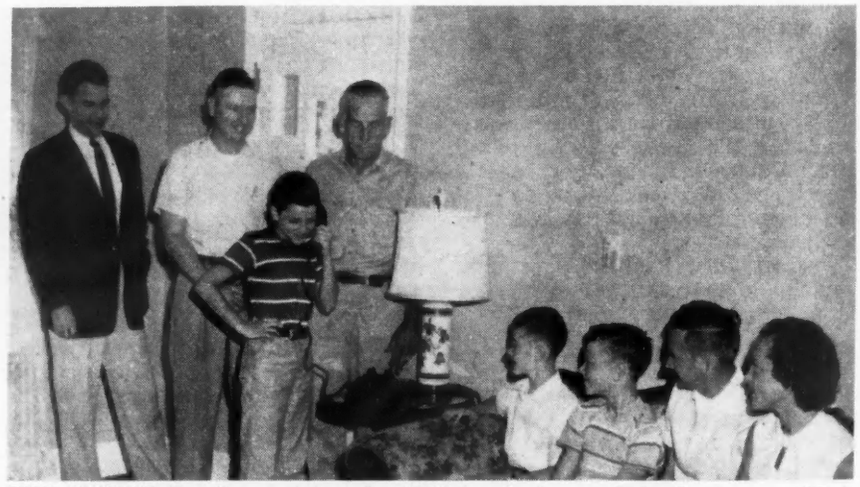
**TO STIMULATE INTEREST** in General Telephone Co. of California's growth, an impressive and colorful display of colored instruments, growth indices, and an electronic secretary enhance the appearance of the window of Merrill Lynch, Pierce, Fenner & Beane's brokerage office in Westwood, Calif.

**PETER E. MITCHELL**, president of the California Public Utilities Commission addresses the California convention delegates on the first day of the recent meeting.




**NEAR THE ENTRANCE** to Carlsbad Caverns National Park a sign placed by General Tel. Co. of the S. W. reminds visitors that modern long distance service is offered by an outdoor booth located 750 feet underground.

**J. T. SWEENEY** has been named credit manager of Automatic Electric Co., succeeding L. B. **JACKSON** who has retired after 36 years service. Mr. Sweeney, a graduate of De Paul University in Chicago, attended the Graduate School of Credit and Financial Management at Dartmouth College and joined the credit department of Automatic Electric in 1949. He was promoted to assistant credit manager in 1952.



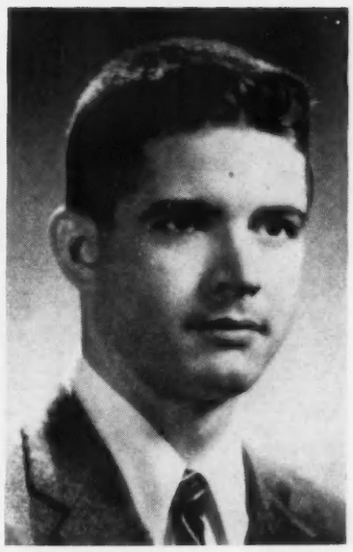
**THE SNIDER** Family receiving the 6000th telephone of the Lexington (Va.) Telephone Co. From left to right: CHAS. W. GUNN, JR., commercial manager; JOHN QUIST, wire chief, REID FALLS, installer; JOHN, GLEN and JAMES and MR. & MRS. SNIDER.

M. A. SILVERMAN, vice-president in charge of sales of Wall Manufacturing Co., Grove City, Pa., has announced the appointment of M. A. "MEL" KAUFF (above) of Far Rockaway, N. Y., as sales manager of Wall's industrial division. Mr. Kauff has been associated with various firms in the industrial sales field for over 25 years. He heads an industrial engineering staff that is available to industry for solving soldering problems, and for instructing on the proper care and use of soldering products.

International Business Machines Corp. has appointed JOSEPH B. ROGERS special representative in the communications department, with headquarters at New York City. Mr. Rogers will be responsible for investigating the application of scientific computing techniques to telephone and telegraph communication problems throughout the United States. For the communications field in general, he will coordinate sales activities and planning of applications of IBM equipment.

PICTURED ABOVE is the artist's conception of the sub-exchange office to be erected by General Telephone Co. of Kentucky to serve south Lexington.

HOWARD SMITH (above) has been appointed assistant general sales manager of Bakelite Co., a Division of Union Carbide & Carbon Corp. Mr. Smith will have as his primary responsibility the pricing of materials and administration of contracts. Mr. Smith joined Union Carbide's plastics division in 1925 as a technical representative. He has served as district manager in Rochester and Cleveland and manager of the Varnish Resins Division. He was formerly manager of the Industrial Products Department.



Reilly Tar & Chemical Corp., Indianapolis, Ind., has announced the appointment of DANA BARKER as sales engineer. Mr. Barker is now serving the Cleveland, Ohio area where he handles Reilly chemicals and other products offered by the company. A native of Cleveland and a graduate of Western Reserve University, Mr. Barker served with the Army Chemical Corps, Edgewood Arsenal in World War II. Prior to joining Reilly, he was with the General Tire & Rubber Co.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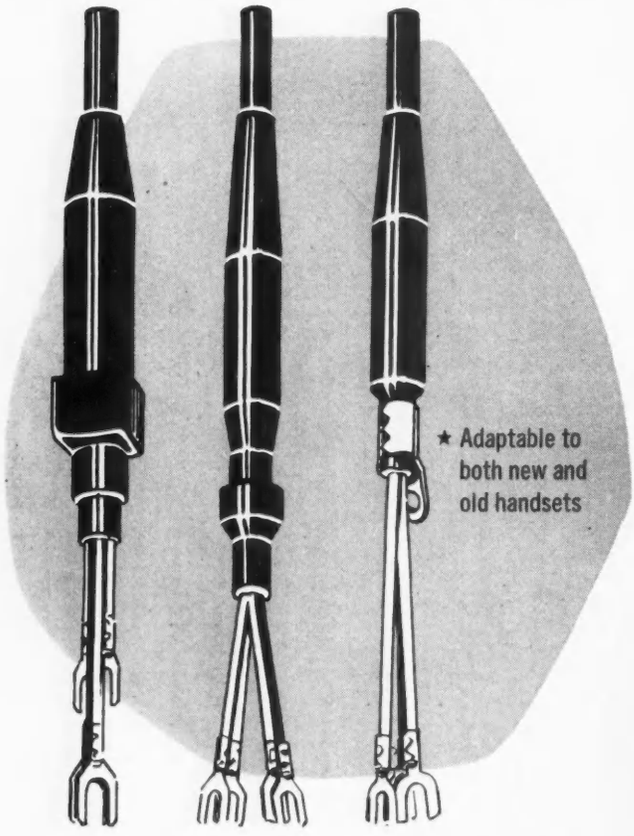


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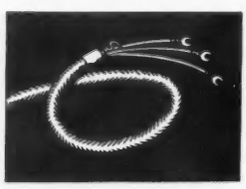

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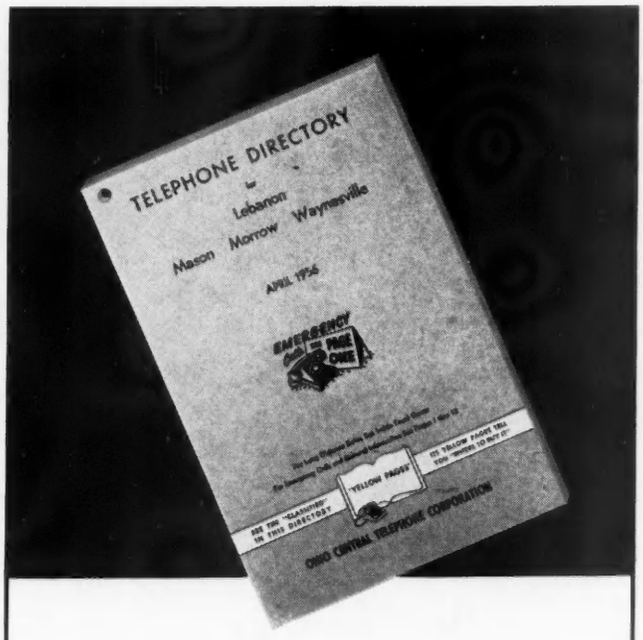


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**"SCOTCH" Brand Aluminum Tape** — has special adhesive to insure an effective moisture barrier. "SCOTCH" Electrical Tape No. 49 is available in 2 inch by 20 foot rolls.

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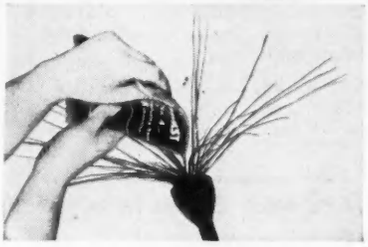

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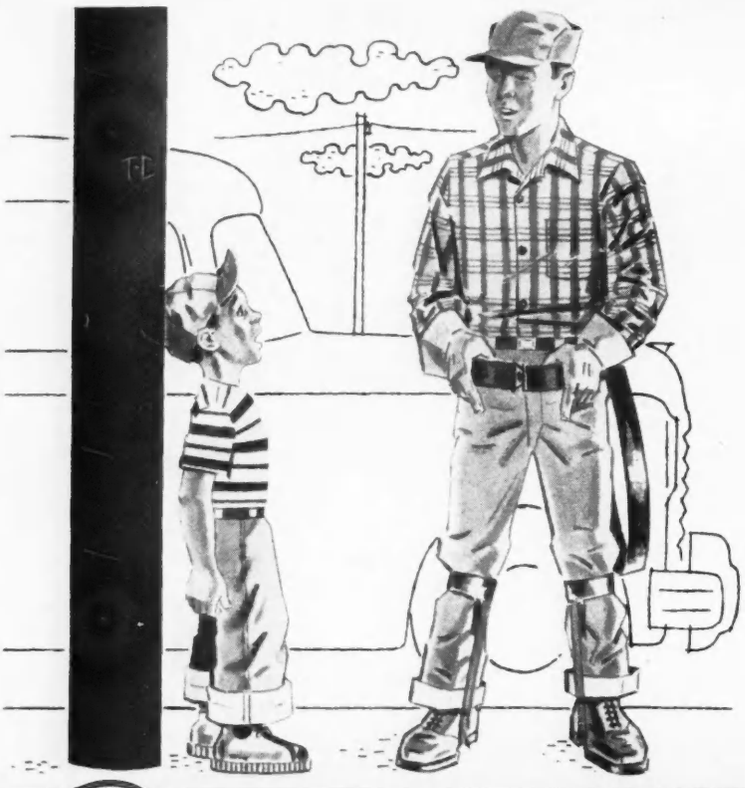


# Dad says for me to stand up straight like a T-C pole

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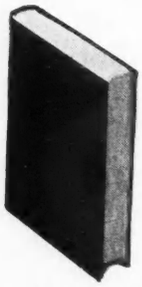

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# EDITORIAL

# "You And Your Small Company Committee"

WE SUPPOSE that as long as life has existed individuals and groups have been trying to get other individuals and groups to do certain things and act in certain ways.

And we will go along with those who say that all these efforts have not been good ones.

But right along with our nod of agreement we'll add that the good efforts have somehow come out ahead of the bad ones. The truth of that statement lies, we believe, in the fact that the world seems generally to have improved over the centuries as a place to live in.

Right now the telephone industry has certain groups working hard at the job of helping small, locally-owned telephone companies meet and overcome their difficulties. On several occasions in the past we have applauded the good work of the Small Company Committees of the USITA and the State Telephone Associations, and today there is ample reason for a continuation of that applause for the years have proved that the work has been valuable to the Independent telephone industry as a whole.

We know from the records and reports crossing our desk each day that the managements of many small companies who have listened and followed the advice given them by representatives of the Small Company Committees have made progress.

At the same time we know from the same reports and other sources of information that many small companies whose owners and managers listened but failed to follow the advice have slipped into the further trouble that came with the deterioration of their plants and consequently of their service.

Truthfully, we cannot understand the the thinking of those who have listened but not acted.

Numbered among the National and State Small Company Committees are men who have met and whipped to a regular "*fare-thee-well*" most, if not all, of the problems confronting many of the small companies operating within the borders of the good old U. S. A.

These Committee members well know the the troubles that come from the present high levels of costs, expenses and wages. They have lived with and on the thin margin that often exists between the income and outgo of a small telephone exchange and they have learned how to fatten up that margin. They have seen service impaired because of low rates and they have learned how to insist upon and receive rates for their service that adequately protect the property and supply first class service to the subscribers.

That the advice of such men should be well received and followed by some and ignored by others might well go down in our book as one of the great mysteries of our time.

To those who have listened but failed to act, we say its high time for a careful reconsideration of the ideas given to you by your State Association's Small Company Committee. There is no better time than right now for putting those ideas to work. Others before you have taken the same ideas and come up with properties that are credits to the telephone industry, service that pleases subscribers, and Profit and Loss Statements that please stockholders.

We said in the lead paragraph of this editorial "the groups that have been trying to get other individuals to do certain things and act in certain ways have made this world a mighty fine place to live in"

Your Association's Small Company Committee with its advice on how to do certain things and act in certain ways has the right tonic for bringing your company out of its doldrums .

We know it has the right ammunition. How you use it is up to you. You can put it to work and score a "bulls eye." Or you can listen and ignore it and be obliged to sell out at a fully depreciated value to a stronger neighbor who can provide the kind of service your subscribers want and are entitled to.

The decision is yours to make.

*P. S. If you want the name of the Chairman of your Small Company Committee drop us a line. We'll send it to you!*

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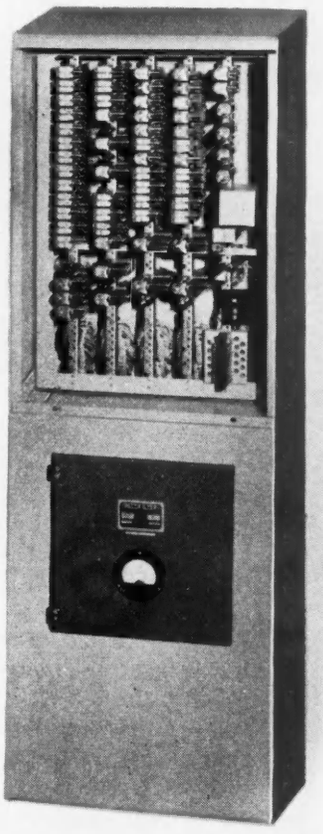
EQUIPMENT FOR 2-10 SYSTEM, including battery eliminator, takes less space than a water cooler. Cabinet is 53½" high, 18¼" wide, 10⅛" deep. System includes selective talking, automatic ringing, instantaneous ringing trip, and dial, ringing and busy tones.



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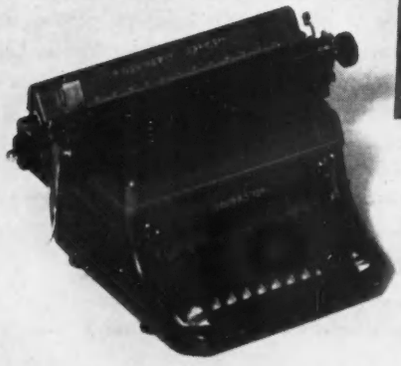

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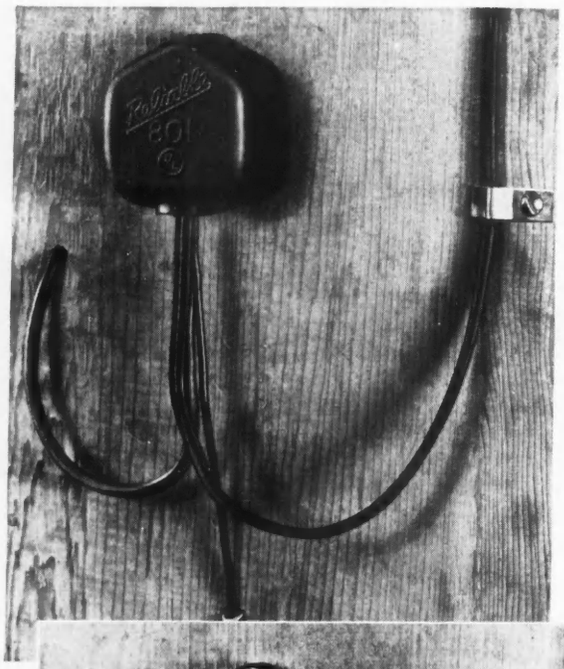


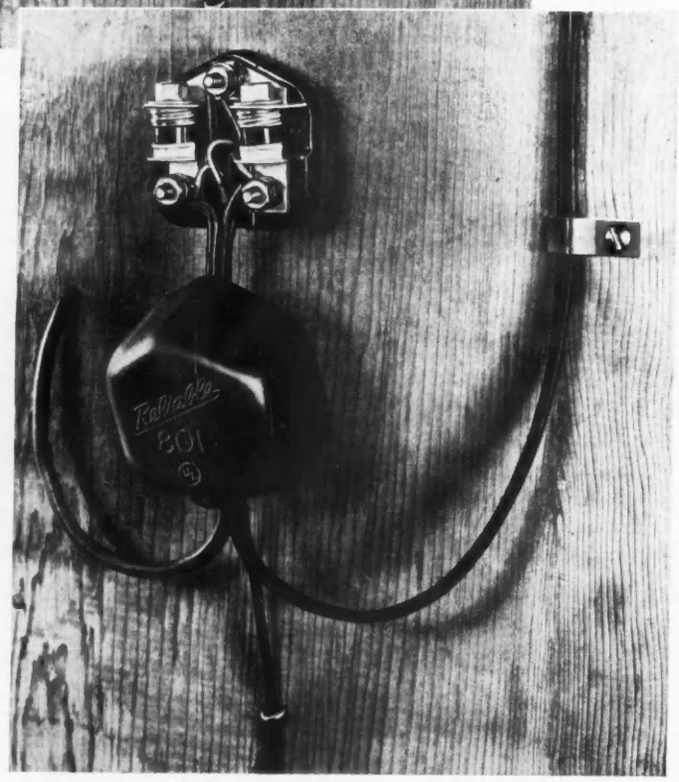


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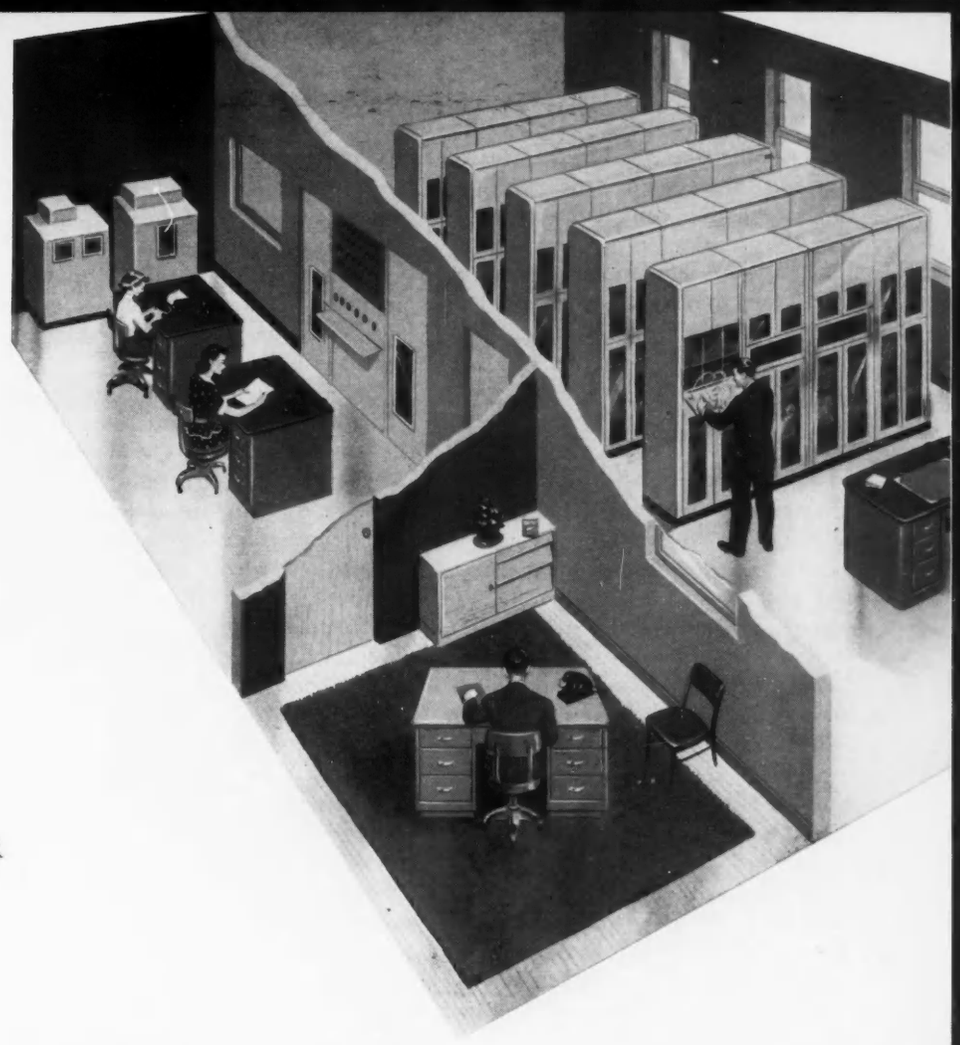
# The Positive Approach



By DON W. WALKER

**COMPLETE RELIANCE upon present demands for telephone service cannot sustain a dynamic growing industry. It's time for industry members to look beyond today's demands and take a "positive approach" toward selling more service to each subscriber.**

WE READ a lot about the positive approach to many things these days, including religion, psychology, salesmanship, politics, and foreign affairs, and I think some possibilities are open to us if we are willing to take a positive approach to telephony.

As operators of public utility companies we are — or at least we should be — public servants. Yet, how many times do we hesitate to act until outside pressures force us to make a move?

When we operate in this manner, we not only fail to fulfill our duties as public servants but we also suffer in practical dollars and cents terms by losing much potential business to industries more willing to compete for the customer's dollar.

There is just as much need for planning for the future, for salesmanship and for good public relations in the telephone business as in any business. These are some of the essentials of progressive telephone management and the results which their introduction can bring about are what I refer to as, "*the power of positive telephony.*"

### *Pioneers Took The Positive Approach*

THE SUCCESS of this approach in the Independent Telephone Industry has been readily apparent since the industry's inception in the late nineteenth century.

It would be difficult to imagine a more positive program than that of the earliest telephone companies. Our thriving industry today is the result of a determination by telephone pioneers with foresight for a great future for the telephone.

These first Independents must have had good reason for entering the field as they did. They foresaw the tremendous potential growth of the telephone industry which was soon to sweep the country. They saw, that by being small and vigorous, knowing the needs of their own area, and by taking a personal interest in their customers, they could successfully expand their volume of business. This growth continued gradually, withstanding those dark depression days of the early 30's, we moved into a period during World War II when demands for service began to increase rapidly but the companies were handicapped by shortages of labor and materials with which to meet the demand.

The most fabulous years of our industry occurred in this past decade. Faced with tremendous need for expansion and modernization in the post-war period, the telephone industry once again has shown that great tasks can be accomplished. The war

period had brought plant expansion to a near standstill for several years. At the same time the emergencies of war and the consequent demands for the best possible communications system for our armed forces had resulted in new and modern developments. Moreover, the servicemen who had seen this modernization wanted it in their own homes when the war was over.

### *Post-War Problems*

THE PROBLEMS facing the Independents at this time were manifold. The basic question was how to finance the expansion and modernization that was needed. Generally, the amounts of capital funds needed were far in excess of local bank limitations. Consequently, it was necessary to seek loans from larger lending institutions. Several of the larger and more enterprising commercial banks were contacted and showed an eagerness to make a study of this great need for capital funds for the rebuilding program the Independents were facing. As a result of these studies and with the aid of various branches of our industry including our Association a new avenue of financing was opened for many companies.

The bank loans were of a temporary nature, however, usually expiring within a short time after the completion of the construction projects on which the loans were made.

The loans, as a rule, were made with the understanding that they would be repaid through a more permanent funded debt financing plan. Up to this time, the Independents, except for the larger companies, had little experience with funded debt financing. However, with some institutional work by our companies with the aid of the banks and the co-operation of the Public Service Commission, several investment companies became interested in lending funds to qualified telephone companies on a long term basis, usually taking a mortgage on the property.

There still remained the matter of equity financing and for some of the smaller companies, this has been their biggest problem. Generally speaking, however, by adopting a vigorous and positive program for improved public relations where needed, plus the improved service offered, the Independents have done a remarkable job of selling equity stocks, mostly in their local service area.

### *Adequate Rates*

CLOSELY related to the financing problem, was the matter of obtaining rates for our service to adequately compensate for the large outlay of capital expenditures, plus the ever-increasing cost of other operating expenses. Naturally, the banks, the investing companies and the stockholders were vitally interested in knowing how these companies were going to pay the interest and dividends on such large amounts of money.

There was only one solution and that was to apply to the Public Service Commission for the necessary increases. With the avalanche of finance cases and applications for rate increases that were dumped into the Commission's lap at this time, it was not to difficult to understand that there were some delays in obtaining rate increases. Nevertheless, continued delays could have resulted in a very adverse effect on the progress of the industry's program toward the expansion and modernization of service.

It was very encouraging when the Commission expedited many of these cases by handling them on an informal basis. In my opinion, this manner of handling the smaller cases has not only speeded up telephone progress, but has also brought about a better understanding between telephone companies and the Commission and its staff who are all dedicated toward providing the best possible service to the public.

This open door policy has resulted in many companies feeling more free to seek advice and counsel from the Commission to best resolve the problem before them.

### *Expansion & Modernization*

THE IMMEDIATE post-war prospects for many Independents semed to indicate a life or death struggle. In no case was it a question of, "should we not?" or "should we?" expand and modernize our facilities as it had sometimes been in the past. The question now was "can we?" "can't we?" As had been predicted, some of the real small companies confronted with this question have either dissolved or merged with a contiguous or larger company. Others, met with this alternative, found that they could and they did expand and modernize at a rate heretofore unknown.

The growth of the Independents in New York State over the past 10 years is phenomenal. There was an increase in number of telephones from 265,000 to 500,000, or 90 percent.

This is an amazing accomplishment and is a credit to the entire telephone industry including the telephone manufacturers who supplied the equipment as well as the companies who have installed it in the field.

But I believe the financing job that made this work possible is the greatest accomplishment of all and this is revealed in the capital structure change that has taken place in the operating companies. In 1945 the capital stock, funded debt and notes payable of the Independents in New York State amounted to 25 million dollars. Today, this total has risen to 80 million dollars, an increase in the capital structure of these companies

**"WE MUST embark upon a "positive program" designed not only to meet but create consumer demand."**

of 312 per cent in the past 10 years over the 50 preceding years.

For a person who has been involved in this strenuous rebuilding period there might be a natural tendency to want to sit back, take a deep breath and relax. But we cannot lapse into a "wait and see" attitude. Instead, we must embark upon a positive program designed not only to meet but also create consumer demand if we are going to compete in a free economy. In the past the telephone industry has too often tended to look only to the manifested demand for telephone service. Complete reliance upon demands already extent cannot sustain a dynamic, growing industry in the future, for the majority of the population is already enjoying what it might consider sufficient telephone service.

### *The "Positive" Approach*

OUR opportunities will appear unbounded, nevertheless, if our attitude is a positive one looking to the future. After all, the majority of the population felt it had sufficient automobile transportation even before the war, and those fortunate people with "41's" had the newest cars on the road in 1945. The automobile industry has switched this condition around in a few short years so that now two cars to a family is ordinary and if there are children of drivers ages, there is probably a third car.

We also need to seek a positive method to provide our customers with telephone service of tomorrow, and not at some distant time. There are so many significant improvements presently being made in the telephone industry that we need not try to sell the superficial. Instead, we can concentrate on services with real value. In comparing value, there are but a few commodities, if any, that can compete with telephone service.

Therefore, we must educate our customers to the value of our service. Did you ever ask one of your rural customers, for example, how much he is paying for his local telephone service? Try it some time. I'll bet over half of the customers you ask, don't know that their telephone service for 24 hours costs about the same as a cup of coffee, or that they are receiving this convenience and protection for so little.

Our telephone equipment manufacturers have certainly been motivated by a competitive desire to keep pace with this fast growing industry. This is recognizable in recent announcements by telephone manufacturers of sizeable plant expansions from which will come the new equipment and supplies of the future. And this is not a surprising development by our manufacturers if we consider the possible telephone growth for even the next 10 years.

### *Telephone Growth*

THE population forecast for the next 10 years shows an increase of thirty million in this country. Families will be moving into many areas served by Independents by reason of a gradual migration toward rural living with modern conveniences.

An even larger potential market lies in providing present customers with convenient extension telephones or additional lines into the home or office. A large family with growing children often needs several telephones to provide satisfactory telephone service. No one in this day and age should have to run up and down stairs to answer the telephone and perhaps miss an important call by the time he gets there. For a few cents a month more, the telephone could become a real convenience and eliminate any nuisance value.

Among the opportunities for increased business presently available to us is the stimulation of toll revenue by advertising and by improved service . . . . I believe my sequence is wrong here, however, I should have said "improved service" first. Conversion from manual to dial operation has proved to be a big boon to the toll usage. Factors such as clarity of transmission, speed of the completed call, convenience of the new telephone set, all enter into the reason why the calling rate increases. It all ties in with improved service. Operator toll dialing, has stimulated toll usage and direct distance dialing will no doubt, increase the calling rate even more.

Our service might be compared to some of our modern thruways. By eliminating the bumps, curves, hills and stoplights, the road will be more attractive and it will be traveled more.

There are several special services which have become popular and are revenue-getting items such as the "no hands" telephone, the electronic secretary and the colored telephone—to name a few. We found that one customer was very pleased with his electronic secretary for this reason. His clients in the west, who did not stop to consider the difference in the time zones when placing their call, failed to get their order in on that particular day. His electronic secretary now accepts the message after his office is closed.

**IN COMPARING values there are few commodities that can compete with telephone service.**

Competition need not be between two companies of a similar nature. As the standard of living rises the consumer spends more and more of his money on non-essentials. Money which is not needed for essentials can be spent on anything at all or can be saved. The telephone company can therefore compete for the non-essential part of the consumer's dollar just as well as the automobile and TV people, if it has equally desirable merchandise and a willingness to

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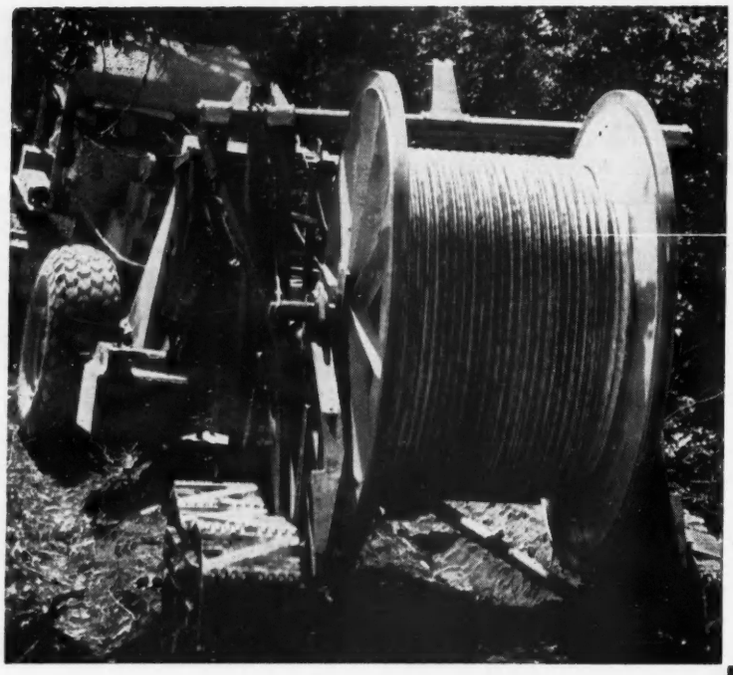
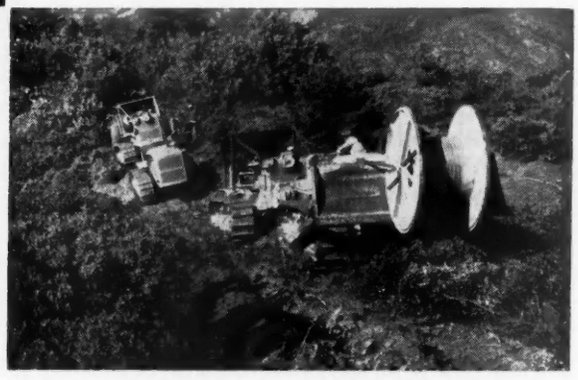


# Modern Cable Construction



**Section VIII-B of Mr. Reed's article describes —(1) methods of spinning cable to its supporting messenger, and (2) tensioning the cable prior to spinning. Section VIII-A appeared in the August issue of "Fortnightly Telephone Engineer."**

By JOHN S. REED

PROVIDED that certain simple precautions are taken, spinning of telephone cable to its supporting messenger results in the elimination of all bending stresses caused by the creeping of the cable along the messenger. With the cable lashed snugly against the strand, and the lashing wire tight enough to hold it in position, cable movement is prevented.

Expansion, contraction, and vibration of aerial cable set up stresses in the cable sheath. If these stresses are distributed throughout a considerable length of sheath, they normally cause no damage. If, however, they are concentrated at one point, sheath failure ultimately occurs. Such focal points of stress occur at the wiped joints of lead sleeves, because of the rigidity of the sleeves. Since spun cable is held snugly against the strand permitting no appreciable movement of the cable in relation to the strand, splices should also be firmly attached to the messenger, thereby keeping movement of the cable at the joints to a minimum.

A common method of placing and spinning cable where the lead along which the cable is to be placed is in the open, free from obstacles is to drive a truck and cable reel trailer parallel to and almost directly under the messenger attached to the poles. In this procedure one end of the cable is raised to the strand and attached to the pole at the starting point of the cable spinning. A cable placing shoe (*Figure* 192) is placed over the strand and cable. The shoe is made with a large radius and is curved inside to fit the cable. The shoe is pulled out 4 or 5 feet from the pole to allow room for a cable spinner to be placed over the strand and cable. The spinner is then attached either directly to the shoe with a short tow line or to the cable trailer with an auxiliary tow line. In many cases it will be found to be more satisfactory to use an auxiliary tow line to pull the spinner. Then if there is any difficulty encountered in the spinning, the machine may be stopped a little quicker than if it had been attached directly to the cable placing shoe.

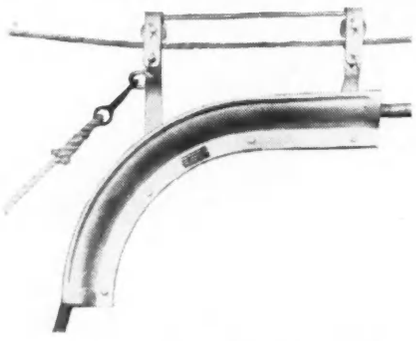


**FIG. 192: — Neale cable placing shoe for guiding cable onto strand.**

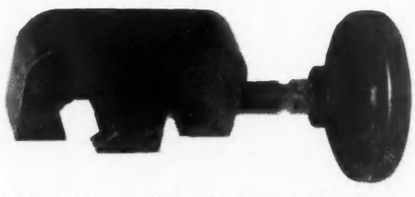


**FIG. 193: — Neale lashing wire clamp for temporary attaching spinning wire to strand.**

After the spinner is placed over

**FIG. 194: — Neale steel cable placing ring for temporarily supporting cables 100 pair or smaller in size being pulled in.**

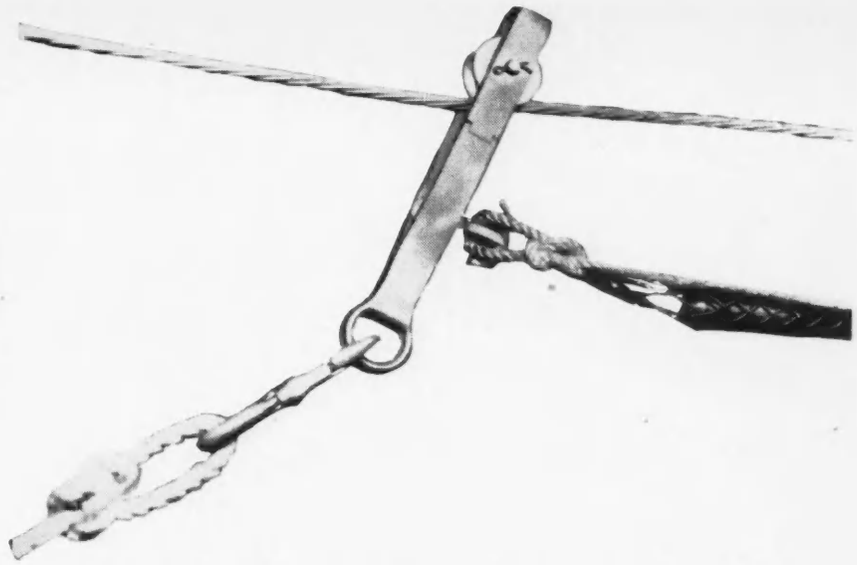


**FIG. 196: — Neale cable placing ring guide roller with cable pulling rope secured to frame and tow line fastened to bottom eye.**

the strand and properly adjusted, the spinning wire is brought over the rear of the spinner and spiraled temporarily around the cable and strand one or two times. A lashing wire clamp (*Figure* 193) is attached to the strand to temporarily hold the wire. The truck towing the trailer is started to initiate the spinning operation. The cable placing shoe raises the cable to the strand and feeds it into the cable spinner for the spinning operation. The truck must proceed at a slow speed in order to prevent tangling or snarling in the spinning operation. This is considered to be a fast method of spinning aerial cable, provided there are no obstructions along the route.

The most satisfactory results are considered to be obtained when the cable is held under constant tension throughout its entire length while, in the foregoing method, the tension under which the cable is placed may vary according to the amount of free cable between the cable reel trailer and the cable placing shoe. Pulling out to avoid small obstacles may result in changing the grade of the cable, producing higher or lower pulling tensions on the cable.

For this reason, the preferred method is the one using temporary rings. Temporary rings may be made of spring steel as shown in *Figure* 194, or of bronze as indicated in *Figure* 195. The bronze rings are considered more desirable due to the fact that they have a roller which serves to protect the lead sheath of the cable from abrasion as it is pulled through the rings.

These rings are attached to a ¼ inch rope at intervals varying from 5 to 15 feet. In practice, prior to

**FIG. 195: — Neale bronze cable placing ring for temporarily supporting larger cables being pulled in.**

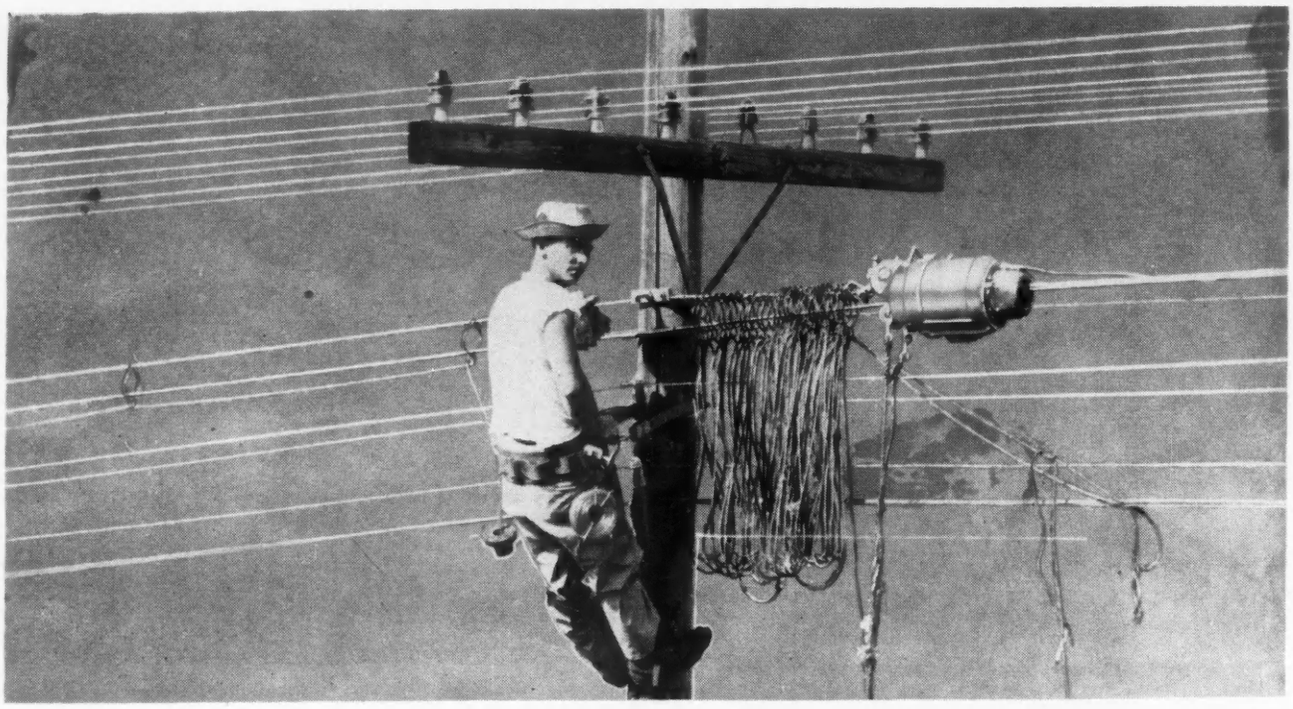


**FIG. 197: — Cable lashing operation with Neale Model D spinner. Spinner has pushed temporary rings to pole and is ready to be transferred to span on other side of pole.**

the placing of the cable, groups of these rings attached to a rope long enough to go from one pole to another are placed over the strand at the pole with one of the rope ends attached temporarily to the pole. To place the cable, the end of the cable is raised to the strand and passed through the rings which are grouped together in a distance of approximately 18 inches and then attached to a cable placing ring guide roller (*Figure* 196) which rides the strand. The roller is attached by tow line to the truck. The opposite end of the rope which is fastened to the ring is also attached to the same roller.

The next step in placing the span of cable is to pull the tow line with the truck to the next pole. As the cable is pulled in, the rings automatically space themselves at the predetermined intervals throughout the entire span. At the next pole, the end of the cable is released from the cable placing roller and passed through the next bunch of rings. The rope attached to the roller is then temporarily tied to the pole and the roller is changed to in front of the next ring. The operation is then repeated to place the next span.

In this method it is necessary to have a sufficient number of these sets of rings to place an entire reel length of cable because the spinning operation cannot be started until the entire length of cable is placed.

To spin the cable, the spinner is placed over the strand and cable at one end making the necessary adjustments and the temporary termination of the spinning wire, then the rope which ties the rings together and is temporarily tied to the poles is released, thus allowing the spinner to pass the rings along the strand as illustrated in *Figure* 197, as it is pulled through the span to the next pole where the rings are removed and the spinner is transferred around the pole to spin the next span. The steps of this spinning procedure are diagramed in *Figure* 198.

### Tid-Bits

**In Chicago,** a customer told the Illinois Bell Telephone Co. he wanted one of these new "Venus" telephones. The company representative was puzzled, until the customer explained he meant a "speaker-phone" which doesn't have to be lifted in use — "no hands."

■ ■ ■

**In Wyandotte, Mich.,** a customer came into the Wyandotte public office to place order for new telephone. When the commercial department employe asked the man for the type of residence in which he wanted the telephone installed, he started to answer, but hesitated. The employe re-worded question and asked again, "Is it a single residence?" Very seriously, he replied, "No, everyone in the house is married."

### *Tensioning the Cable Prior to Spinning*

IT IS desirable to place a certain amount of tension in the cable before proceeding with the spinning. This will prevent the formation of bows or bends in the cable.

In pulling the cable off the reel, if the temperature is less than 60° and the cable is small, the tension can be applied by a man holding the cable with a greased rag in his hand and moving ahead of the pulling crew. For high temperatures or for larger cable up to 200 pair, 24 gauge, in weight of the cable itself will provide the necessary tension.

When the cable is placed in temporary rings and before it is lashed to the supporting strand, it is placed under tension by the following method.

With the far end of the cable clamped to the messenger strand with a cable clamp, the cable is pulled until all bends and bows are taken out and about 2 inches of stretch are placed in the cable. The tension is then reduced to the point

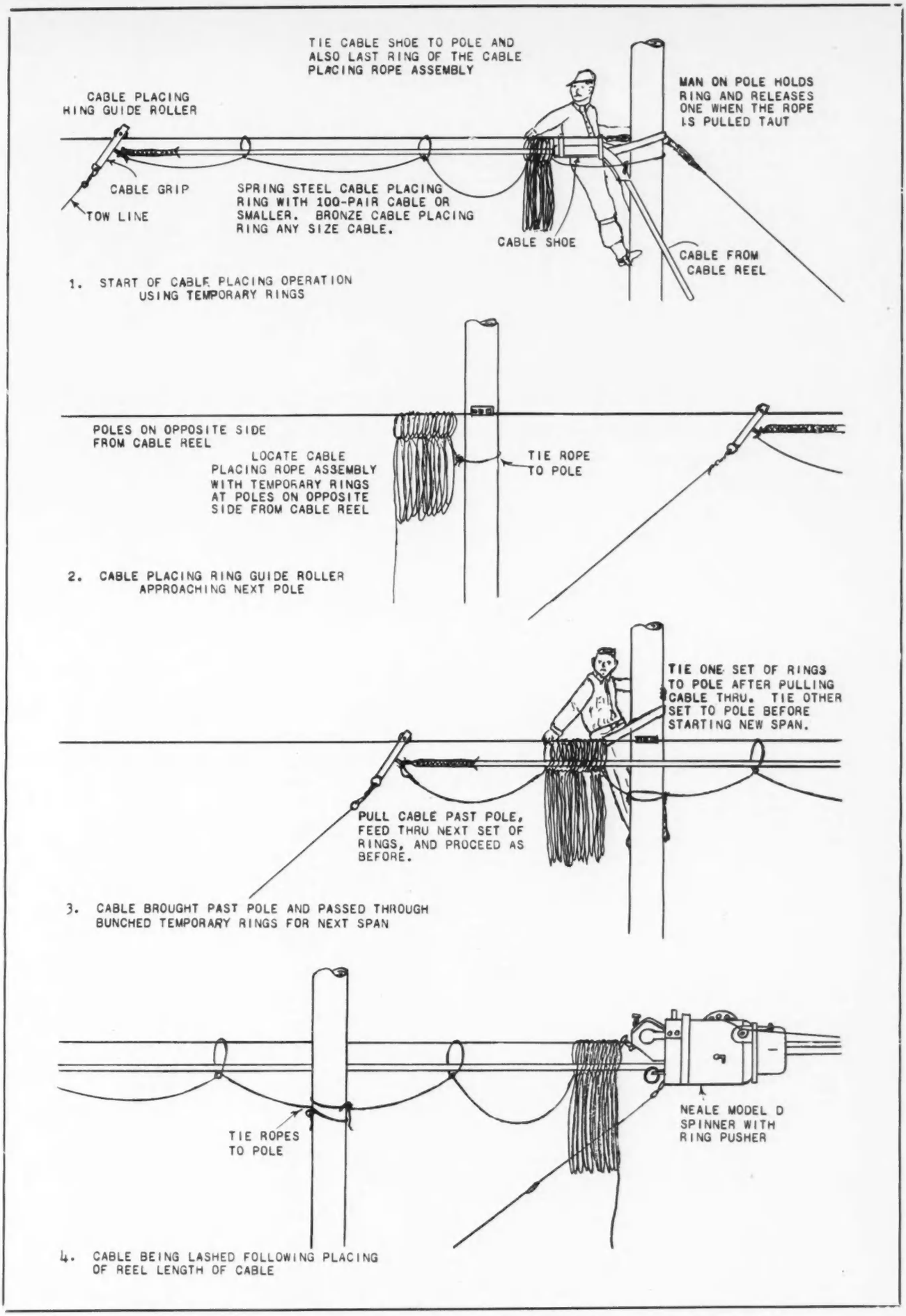

TIE CABLE SHOE TO POLE AND ALSO LAST RING OF THE CABLE PLACING ROPE ASSEMBLY
CABLE PLACING RING GUIDE ROLLER
MAN ON POLE HOLDS RING AND RELEASES ONE WHEN THE ROPE IS PULLED TAUT
CABLE GRIP
TOW LINE
SPRING STEEL CABLE PLACING RING WITH 100-PAIR CABLE OR SMALLER. BRONZE CABLE PLACING RING ANY SIZE CABLE.
CABLE SHOE
CABLE FROM CABLE REEL
1. START OF CABLE PLACING OPERATION USING TEMPORARY RINGS
POLES ON OPPOSITE SIDE FROM CABLE REEL
LOCATE CABLE PLACING ROPE ASSEMBLY WITH TEMPORARY RINGS AT POLES ON OPPOSITE SIDE FROM CABLE REEL
TIE ROPE TO POLE
2. CABLE PLACING RING GUIDE ROLLER APPROACHING NEXT POLE
TIE ONE SET OF RINGS TO POLE AFTER PULLING CABLE THRU. TIE OTHER SET TO POLE BEFORE STARTING NEW SPAN.
PULL CABLE PAST POLE, FEED THRU NEXT SET OF RINGS, AND PROCEED AS BEFORE.
3. CABLE BROUGHT PAST POLE AND PASSED THROUGH BUNCHED TEMPORARY RINGS FOR NEXT SPAN
TIE ROPES TO POLE
NEALE MODEL D SPINNER WITH RING PUSHER
4. CABLE BEING LASHED FOLLOWING PLACING OF REEL LENGTH OF CABLE

**FIG. 198: — Steps in lashing telephone cable using Neale cable placing rope assembly.**

where the bows begin to reappear. The cable is then pulled up again until it is just straight.

If the temperature is less than 60° F, the cable is stretched an additional distance as shown in the table at right. Friction tape wrapped individually around the messenger and around the cable is employed for markers to show when the required amount of stretch has been obtained.

The tension is applied by means of a rachet hoist attached to a split cable grip placed on the cable end. No more tension should be applied than actually necessary to straighten the cable and to place the proper stretch on the cable, as required by the prevailing temperature.

Cable rings or blocks and rope mats used in pulling the cable around corners should be left in place, until the cable has been lashed in order to maintain the proper tension in the cable.

| Temperature in Degrees F | Amount of Stretch per 100 feet of Cable on: 6,000 pound and 10,000 pound strand | 16,000 pound strand |
|---|---|---|
| -20 | 15/16″ | 1 1/4″ |
| -10 | 13/16″ | 1 1/8″ |
| 0 | 11/16″ | 1″ |
| 10 | 9/16″ | 15/16″ |
| 20 | 1/2″ | 13/16″ |
| 30 | 7/16″ | 11/16″ |
| 40 | 5/16″ | 9/16″ |
| 50 | 3/16″ | 1/2″ |
| 60 | none* | 7/16″ |
| over 60 | none* | none* |

*Cable pulled only sufficiently to make it lie straight.

Example: If a 400 foot length of cable on 6,000 pound strand is to be lashed and the temperature is 30 degree F, the required stretch is:
400÷100 x 7/16″=4 x 7/16=28/16=1 3/4″

The final step in the placing and spinning of cables, and probably the most important one, is the termination of the spinning wire. It is vitally important in terminating the spinning wire at the poles that no slack be allowed to run back into the machine spun cable. These spans are temporarily deadended with lashing wire clamps until the permanent deadend can be made up.

Spinning wire terminations should be made as soon as possible after the lashing has been completed in each span of cable, in order to relieve strain on the cable at these points. Methods of making these permanent terminations will be described in a later section of the series. — *To Be Continued.*

# How Are Your Telephone Manners?

MUMBLE is a busy executive, a model of efficiency. He picks up his telephone and barks: "Get me Bumble of Bumble's."

While the switchboard operator is getting through to Bumble's, however, Mumble is called out of his office to confer with his partner, Rumble.

When Mumble's operator gets through she says to her counterpart at Bumble's: "Mr. Bumble, please."

"Right, I'll put you through."

The telephone rings on Bumble's desk. He picks up the receiver: "This is Bumble."

"Please hold on for Mr. Mumble," he is told.

Bumble holds on.

Now Mumble's telephone operator rings through to her boss, as we all know, the guy is down in Rumble's office.

Mumble's operator says to Bumble who is still there gripping the telephone: "Just hold on Mr. Bumble, we're trying to locate Mr. Mumble."

Bumble grits his teeth and holds on.

Finally they run Mumble to earth in Rumble's office. He picks up the phone says:

"Hello?"

"Hello?" says the long-suffering Bumble.

"Who's that?" asks Mumble.

"This is Bumble."

"Oh, yes. This is Mister Mumble speaking. About that ten thousand dollar order of yours . . . . . "

"The order is cancelled," says Bumble, replacing the receiver.

Exaggerated? Of course.

Most people say 'Please' to their telephone operators — they are not always called out of their offices as Mumble was. Not everyone starts off with that inane "Hello?" And there are lots of people who do not refer to themselves as Mister.

BUT — eight out of 10 calls which come to my desk are of the "P l e a s e-hold-on-for-Mr.-Mumble" variety. Sometimes I only have to wait a few seconds, sometimes a few minutes. Why should I have to wait at all?

Most of the people who telephone me do not intend to be objectionable. They just ask the telephone switchboard receptionist to get them through to Mr. Bumble and the ball starts rolling from there.

The obvious thing to do is to ask for the *Firm* and not the *Individual.* That way you do not keep Bumble holding on to his telephone and you are able to greet him straight away with a cheery: "Good morning, this is Mumble speaking."

But during the course of the busy day you are liable to ask your telephonist for the man not the firm — because it is of the man that you are thinking. So, you tell your switchboard girl that she must get you the firm anyway — no matter what you say.

There is another big advantage to this simple rule. It stops others on your staff putting through "Hold-on-for-Mr. Mumble" calls. For all you know one of your junior clerks may be doing just that to one of your customers right now.

Not a very pleasant thought, is it?

**—Phil Glanzer**

*Traffic*

# *Special Services*

# And Service Specialties

By RUTH E. RICHARDS

**IT IS UNFORTUNATE but true that many vacationing motorists have accidents and need the services of a State Highway Patrolman. In this article, Miss Richards explains (1) a system for handling such emergencies, and (2) other services that build good will for the telephone company.**

THESE ARE the days of vacation time, a time of lethargy, and often of do-nothingness, when the fullness of summer is upon us and we find it difficult to plan new projects. By way of summer reminiscences, you don't hear the term "dog days" much anymore, but there was a time when the words were applied to the hot dry days of late July and early August because folks thought the hot weather was related to the rising and setting of the Dog Star, Sirius, the most brilliant star in the heavens.

So, in a summer mood and in keeping with the tradition of "light reading," it seems fitting to drop the detailed lesson assignments with which we've dealt in the past few articles and catch-up on some new operating practices and miscellaneous items.

In keeping with the vacation theme and our knowledge that hundreds of thousands of our fellow citizens "take to the road" during the summer months, I would like to bring your attention to a service which may be given to the visitor to your part of the country. This service will cost you but little in time and effort, yet it may be the means of creating a great amount of good will for your company. In short this good will booster may be put into action by merely making available to information operators, the location and telephone number of the correct (not necessarily nearest) State Highway Police reporting station for your area.

It is unfortunate but true that many vacationing motorists have accidents and have need for the services of State Highway patrolmen. In Illinois, as in other states, the geographic area is divided into districts comprising several counties which are served by a centralized State Police Post. In those communities outside the one where the police office is located, there is no listing for the State Police in the local telephone directory and an Information Operator called upon by a telephone user for the number has no information to pass on. This explainable, but annoying (to the caller) lack of information has been a source of criticism directed toward the telephone company.

Our company is at present establishing the practice of listing, in the "Emergency Call" section of its telephone directories, the telephone number of the State Highway Police Office to which calls from the specific county are to be directed. This listing is provided as a public service and is not repeated in the alphabetical section of the directory.

### *Calls for Federal Bureau of Investigation*

TELEPHONE companies throughout the country are cooperating with the Federal Bureau of Investigation (F.B.I.) by listing the telephone number and address of the nearest office.

It is our practice to direct the telephone user to call "Information" for the telephone number of the F.B.I. At the Information position and/or all other positions where information calls may be handled, the address and telephone number of the office to which callers are to be directed is posted in a conspicuous manner, generally on a colored card.

### *How to Handle a Call For The F. B. I.*

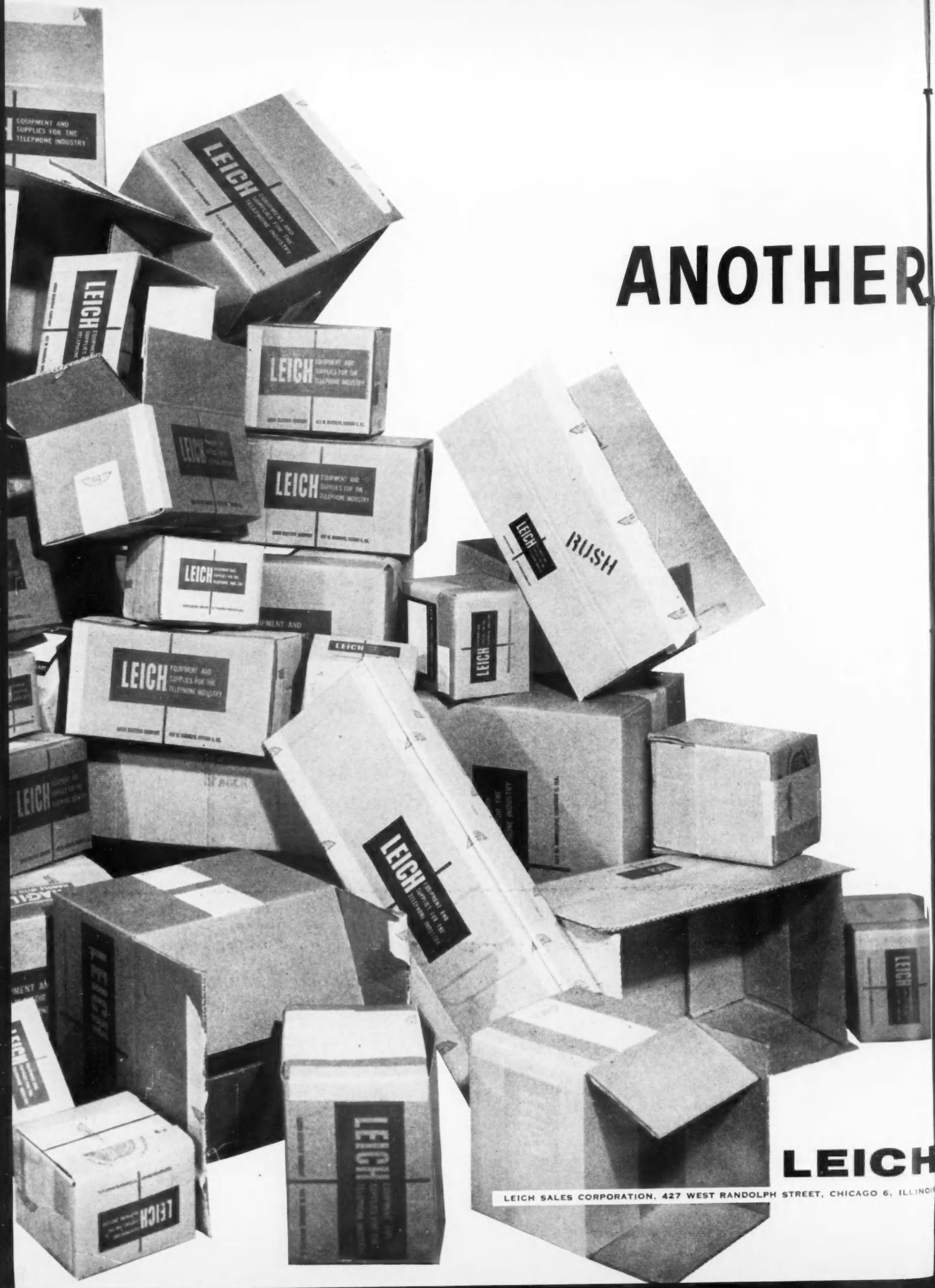
IF THE calling party asks for the address of the F.B.I. say:—

"*The designated office of the Federal Bureau of Investigation for this district is at (street address) (city).*"

If the request is for the telephone number, give it in similar fashion, always prefixed by the qualifying "*for this district.*"

If the calling party wishes to place a call, proceed in the usual way for handling a toll call.

Information relative to the F.B.I. should be given to anyone requesting it. The fact that the request was made or a call placed is confidential in-


ANOTHER
LEICH
LEICH SALES CORPORATION, 427 WEST RANDOLPH STREET, CHICAGO 6, ILLINOIS

# ER HAPPY CUSTOMER!

**the quality was right-**

**the price was right-**

**the delivery was right-**

**and <u>every</u> single item was ordered from <u>one</u> source!**

**--LEICH for supplies**

You can depend on Leich supplies — they are all made by famous manufacturers. Each and every one has been proved on the job. For your further protection, *everything* is fully guaranteed.

Our customers know that Leich's prices are competitive with all . . . and less than many. Then too, you save money by using the best tools and materials.

Your orders are handled promptly and efficiently by experienced people . . . filled exactly as you have requested. And . . . delivery is made *where* and *when* you want it.

Everything you need—tools, hardware, wire, cable, protection equipment, aluminum telephone booths, Electronic Secretaries can be obtained from your Leich warehouse. By stocking a complete selection, Leich is always able to fill your immediate needs.

*Send your next order for supplies to Leich—and you too will become a happy customer! Let us know if you haven't received our catalog.*

**manufacturers of telephones, switchboards and related apparatus since 1907**

PACIFIC COAST: 11401 WEST PICO BLVD., LOS ANGELES 64, CALIFORNIA

SOUTHWEST: 1227 SLOCUM STREET, DALLAS 7, TEXAS

GENERAL SYSTEM

# Special Services

*(Continued from page 49)*

formation and none of the details of the request should be discussed or revealed.

### *Secrecy of Communication*

NOT ONLY calls for the F.B.I. come under the heading of "*Top Secret, Confidential File.*" Every call, every contact that an operator has with a customer must be regarded as "*strictly private.*"

From the first training lesson till the last day of work for the telephone company, employes are charged with the responsibility of upholding the confidential nature of all conversations between customers.

The new employe is impressed with the legal penalties attached to violation of the secrecy code, and in many exchanges a notice is posted in a conspicuous place that may read something like this:

**Notice To Employes. "The Law Makes It An Offense Punishable By Fine Or Imprisonment Or Both To Violate The Secrecy Of Telephone Communications. Employes Are Strictly Forbidden To Divulge Any Information Regarding What They May Overhear Between Users Of The Telephone Or To Listen In On Connections Unnecessarily. Any Employe Violating This Rule Will Be Subject To Dismissal."**

All such notices and precautions are a means of keeping before the employe the seriousness of the nature of their work. But just as speed laws do not keep motorists from speeding, notices alone will not serve our purpose completely. There must be a deep and sincere conviction on the part of the employe that secrecy of communication is a trust, an unseen badge of merit worn by telephone people. This conviction is nurtured in an atmosphere of honest adherence to the code. It is implanted in new employes by the attitudes and actions of older employes who believe in and have respect for the privacy of others, who believe that a telephone conversation should be as inviolate as a personal letter and whose actions uphold their beliefs.

We can go further than telephoned conversations in our adherence to the Secrecy of Communications Code. In our country's national defense program the nation-wide telephone system, an interlocking network of many companies lines and facilities, is an important and vital factor.

Equipment arrangements at key switching centers, information relative to future plans, maps and cable records, and all of the allied data available to employes other than operators should be considered as confidential material and should not be discussed with unauthorized persons. The tendeny to "talk big," as one "in the know," about company plans, should be considered as serious a fault as divulging the fact that a certain conversation took place.

### *Customer Education — Toll Calls Filed by Number*

FIBBER McGEE with his classic "*zat you Myrt*" and subsequent chatter have created a lot of laughs, and you will recall that he rarely, if ever, gave the operator a telephone number, but rather asked for the party he wanted by name.

Good comedy, but not good telephone usage; yet his counterpart still can be found among users in small communities where the operator will establish a connection without a number being given. But when dial service is established the customer needs the telephone number before he can reach the telephone he is calling. This is an example of education by force.

In a more gentle way, we have been attempting — for the past few years — to convert our "call-by-name" toll users to "call-by-number" customers through the use of phrases designed to make the customer number conscious.

On a call placed by address name, the operator is instructed to ask, "*do you know the number?*" or "*may I have the number in (called place) please?*" if it is not offered. If the number is secured from the distant office, and the calling party is on the line, say "*did you get the number?*" or at the first opportunity after obtaining it, say for example, "*the number is ———, if you care to make a note of it.*"

The called telephone number on long distance calls completed by operator dialing, is as essential as the called number on a local dial call if the customer is to receive the fast service that the intertoll dial equipment is capable of giving. With operator toll dialing, station-to-station calls filed by number are usually completed in one-third the time required when the number is not furnished.

Although your office may not be dialing long distance calls, many are completed by dialing at an intermediate office. When the calling party does not furnish the number on a call which the originating operator can complete by dialing, it is necessary for the operator to reach information at the distant point, then having secured the number, she must release the connection, secure another trunk, dial the directing code and the called number.

It is important to the customer, from the standpoint of a faster service that he place his calls by number. It is important to the company because more calls can be completed over the same number of circuits and with less operating time, hence lower cost.

Some companies have found it helpful to prepare "Frequently Called Number Lists" for PBX users and other business customers who are large toll users. For the past several months, toll information practices have provided for allowing the calling customer to talk directly to the distant information operator in those cases where the spelling of a name might be doubtful or difficult or the address subject to question.

This practice has a two-fold purpose. First to eliminate the "middleman," the originating operator, who in such a case had to question the customer, repeat the information to the distant operator and again repeat to the calling party.

The secondary effect of this practice is to accustom the telephone user to dealing with operators in distant places, a sort of long range educational program, for as Nationwide Customer Dialing of toll calls (DDD, Direct Distance Dialing) becomes available to more and more telephone users, it is anticipated that the customer will secure for himself from dis-

tant information operators, the telephone number required to complete his call.

***Vacation Time***

VACATION TIME — where to go? — with whom? — how much can I spend? — are questions and thoughts that fill our minds these days almost as much as does the job at hand.

But have you given heed to the idea of a vacation by hours at a time instead of by days? One frequently reads suggestions for backyard picnics, for one-day jaunts, and such simple pleasures as a hike along a little traveled road as a break in the routine of day-to-day work programs.

I think it an excellent plan, for as an inveterate lover of the out-of-doors, these are the days when I envy the gals who work split tricks, envy them the freedom of afternoon hours to swim or golf or just toast in the sun.

I've often wondered whether we ought not glamorize a bit more the advantages of the daytime hours of freedom that split tricks, (two short tours of duty separated by hours off duty) give to the worker. Many a day I've longed to be free in the afternoon to shop, to have a beauty parlor appointment or work in the garden. Can it be a touch of nostalgia for the time when as a night operator I had my days free to program as I chose? Maybe — well -- "time marches on" — so see you next month.— *Ruth E. Richards.*

**EDITOR'S NOTE**

**Several of Miss Richards articles have been reprinted as a 100-page book titled—"A Guide To Effective Traffic Management Methods." Copies of this attractive, illustrated book are available at $3.00 per copy. Order from Readers' Service Dept., TE&M, 7720 N. Sheridan Rd., Chicago 26, Ill.**

# Revenue Boosters

**Modern Service**

IF YOU HAPPEN to be staying in the latest addition to Toronto's Park Plaza Hotel you will notice a colored extension telephone serving your room.

Here's how it got there along with 234 other colored sets in the hotel. Doug Galbraith of Bell of Canada's Toronto Sales saw Naomi Sheppard, a Midtown Supervisor, giving one of her "Color Courses" and felt that the idea was too good to keep. They arranged a special color course, for the Park Plaza proprietors and their interior decorators. Results — an order for a colored set for every room in the new addition.

**Package Selling**

"IN VIEW OF WHAT you have told me, Mrs. Carter, I think our Modern Plan installation would be the best for you."

Many customers are hearing these words, or words like them, these days. It is all part of our new "Package Selling" approach. Of course, the industry isn't in full swing yet — the program is still in the training stage in some states, but all indications are that customers like to buy complete telephone service "in a package."

Mrs. Carter, for instance, called the Mountain States Tel. & Tel. Business Office to arrange for new service. The service representative, through natural and interested questions, determined the size of the home, the number of people using the telephones, and some special usages. On the basis of this information, she was able to recommend a package of telephone service best suited to the customer's needs — in this case, the Modern Plan for the Carters' 6 room ranch style home.

There's a name for the package that fits every other situation, too — the Efficiency Plan with two telephones for apartments or duplexes; and the Traditional Plan of three to five telephones for story and one-half or two story homes. The cost is quoted for the complete plan, not item by item as in the past.

Mt. States Business Office employes, frankly skeptical at the beginning, are now sold on Package Selling. "It's wonderful!" and "I can't believe it!" are comments often heard from them. A recent Denver training class of five people feels this way, too. They sold 44 of 52 customers additional items of service or equipment on incoming new connect calls.

**Color College**

NORTHWESTERN BELL service representatives are attending classes these days. They're taking a short course in color appreciation called the "Color Story."

And what is the purpose of such a class? Here's what one of the service rep "coeds," just graduated from the course, has to say about it.

"Well, it's mainly designed to help us sell our telephone in color. Our instructor started off by telling us about primary colors and their complements — that some colors are lively and warm; others peaceful and cool. You know, things we learned in school but that most of us have forgotten since then.

That's a pretty good summary of the course. It's proved to be such a good selling tool that Northwestern Bell plans to send its plant contact people to the color college.

After that, it is to be presented to various women's organizations.

# NEW EQUIPMENT and NEW METHODS

By John G. Reynolds

**Placing telephone lines on power-line poles . . . . New Cable lasher . . . . Snow Melting system proves in . . . . New fibre-glass poles introduced at Alma, Michigan.**

## Placing Telephone Lines On Power Line Poles

AT A RECENT Traffic Department Sales and Service Conference of the Norfolk & Western Railway, held at Roanoke, Va., H. C. Wyatt, vice-president and general manager, told the delegates about an important innovation the N. & W. has made in its communication system that was accomplished by devising a way to do something that previously had been thought impracticable.

That innovation was the placing of N. & W. telephone lines on the poles with high tension power lines which carry current for signals, station lighting, and other purposes.

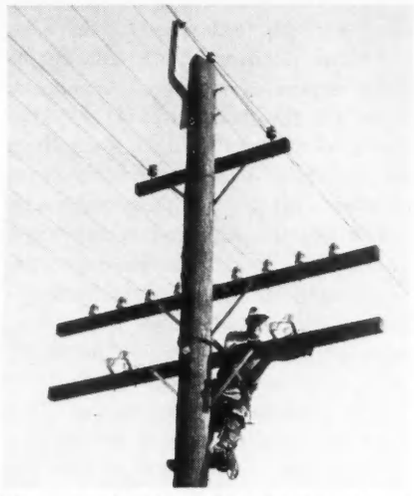
The story of how the impossible became possible is a tribute to the ingenuity of the folks in the N. & W.'s Telegraph and Signal Department.

Until recently the railroad's communication lines were strung on the same poles owned, used and maintained by the Western Union Telegraph Co. These poles were located on the side of the track opposite the location of the railway's high tension pole line.

Because of a decision by the Telegraph company to abandon most of its pole lines along railway tracks, it became necessary for the N. & W. to decide whether to buy the Western Union poles or make some other arrangements. However, purchase of this pole line would have meant that the railroad would have two pole lines to maintain instead of one and work was undertaken immediately to devise a way of installing communication lines on their own power line poles.

At first, there was serious doubt that this could be done because of the interference in communication lines always caused when they are located adjacent to power lines. (The N. & W.'s power lines carry a 4,400 volt, 3-phase, 60-cycle current). However, the N. & W. men decided to try, and authority was granted by the management to see what could be done.

In accomplishing the feat, the N. & W. men used no complicated machinery — just two simple devices that they happened to know about by keeping their eyes and ears open. One was a new type of transposition bracket (pictured here) for the pur-



**Lineman J. E. BOWLES installs a pole type transposition bracket on a pole near Bassett, Va.**

**C. R. GRANT, N & W lineman helper, installs a span-type transposition bracket on communication line.**

pose of crossing the wires at regular intervals so that one wire in a pair would never for any great distance be closer or farther from the power line than the other, and so that neither would receive more interference from another circuit than the other. Crossing the wires also caused interfering current in the pair of wires to neutralize itself. The type of transposition bracket adapted by the N. &. W. was developed by a company building long-distance telephone lines across the Andes Mountains in South America.

The other innovation, also new to railroading, was to space each of the two communication wires in a pair closer together. This accomplished two things — first, it permitted the several pairs of wires on the crossarms to be spaced wider apart, thus reducing intereference among the pairs, and, second, it further equalized the potential of whatever interfering current the pair of wires received.

To install the transposition brackets required some careful planning and execution. First the distance between stations all over the railroad was measured accurately in feet. This distance then was divided by 128 to determine the points at which the wires could be most satisfactorily and economically transposed to keep the two wires properly balanced against interference. Using 128 (a multiple of 2) made it possible to divide the varying distances between stations into equal segments.

Because the work of transposing the wires and re-spacing them on the cross-arms was co-ordinated with the transfer of the communication wires from the Western Union pole lines (which had to be done anyway), very little extra time and work was required to make the improvements.

An additional advantage derived from the innovations is the fact that with the wires transposed it is now possible for them to carry more message currents of different frequencies without further changes in the communication lines.

A standard pattern was prepared for transposing the communication wires at the 128 locations between stations and at many points it was possible to cross the wires on the pole line cross-arms. At other locations it was necessary to install the brackets on the wires, between the poles.

The improvements were being completed when this story was written, and at last report, the telephone system is now functioning satisfactorily, proving that the N. & W. Telegraph and Signal Department knew what it was doing, and did it right.

### New Cable Lasher

UNDER THE auspices of the A.T.&T. Company, a Bell of Canada development in cable lashing was demonstrated recently by Bell Telephone Laboratories to Bell System operating companies at Chester, N. J.

Developed originally for lashing coaxial cables installed by the Bell Telephone Co. of Canada for community TV systems, this simple, easy-to-use device is finding increasing use for lashing short lengths of small-size cable to the wire which supports the cable.

It complements the larger cable-lashing spinner and the big pre-lashing machine necessary for lashing longer stretches of cable.

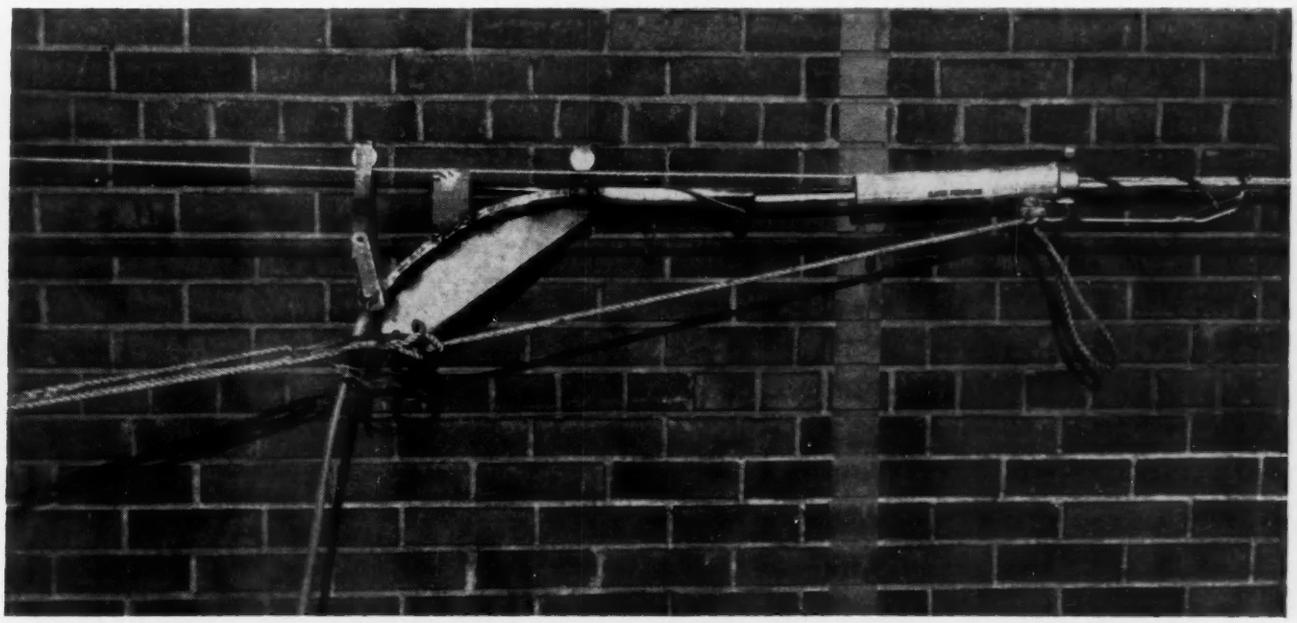
The ZB cable lasher is particularly useful for attaching cable to walls. Formerly the cable was clipped to the wall, and a hole had to be drilled every 18 inches or so along the wall to attach the clips. This was a time-consuming and monotonous job.

Now the cable can be lashed to supporting strand or wire and suspended from brackets which can be as much as 40 or 50 feet apart. The brackets are adjustable so that after lashing the cable can be moved in tight against the wall, well out of the way.

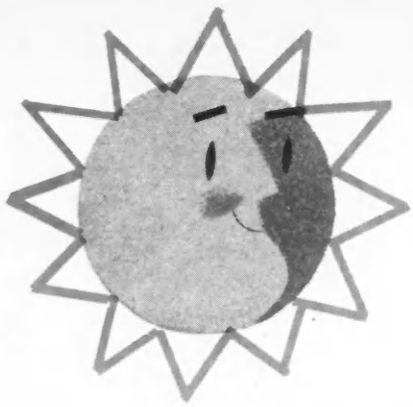
### Snow Melting System

GOOD results from the first winter's operation of a snow melting system are reported by the Southern New England Telephone Co., which installed the system beneath the sidewalks that bound its new equipment building, opened in New Haven, Conn., last year.

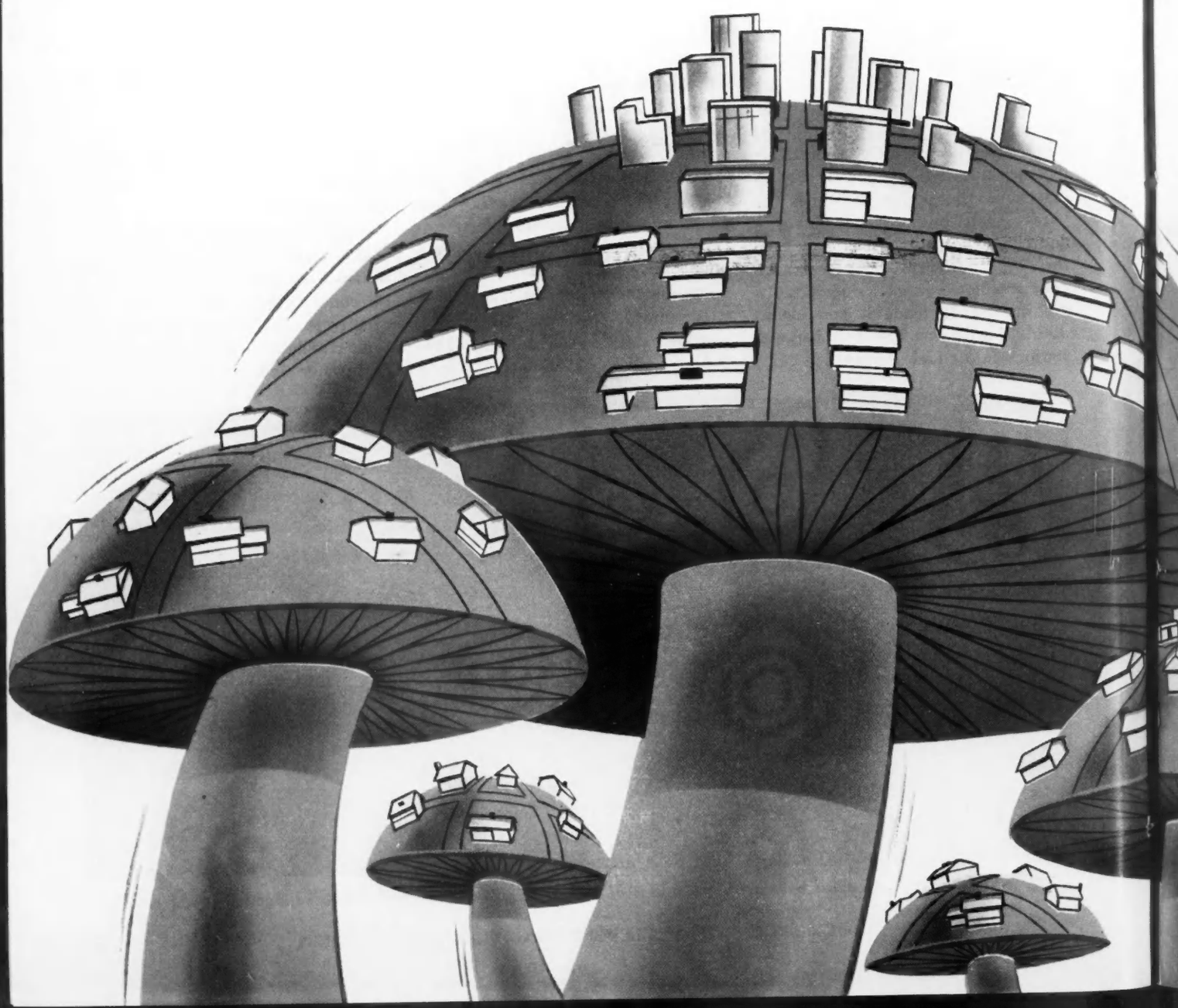
Snow melted quickly on the sidewalks, leaving them clean and dry, because of heat distributed through the concrete slabs from wrought iron pipe coils. The heating medium is a force-circulated solution of 60 percent water and 40 percent ethylene

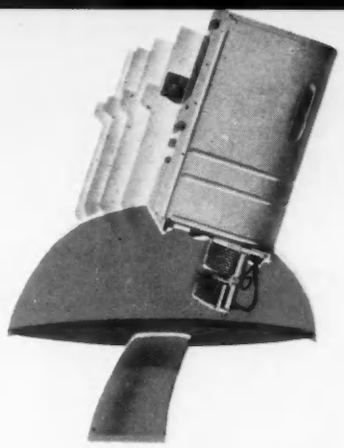


**New device is used for lashing short lengths of small-size cable to the wire which supports the cable.**



# COMMUNITY MUSHROOM





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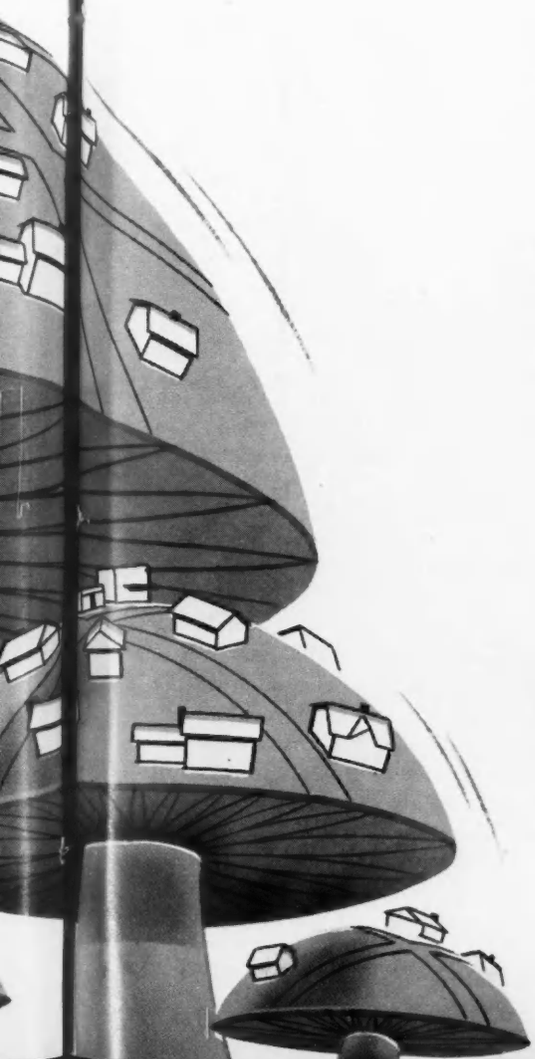


**AUTOMATIC ELECTRIC**

ORIGINATORS OF THE DIAL TELEPHONE

GENERAL SYSTEM INDEPENDENT

glycol. The solution is heated by an exchanger piped into the building's high pressure steam lines that originate at an oil-fired boiler.

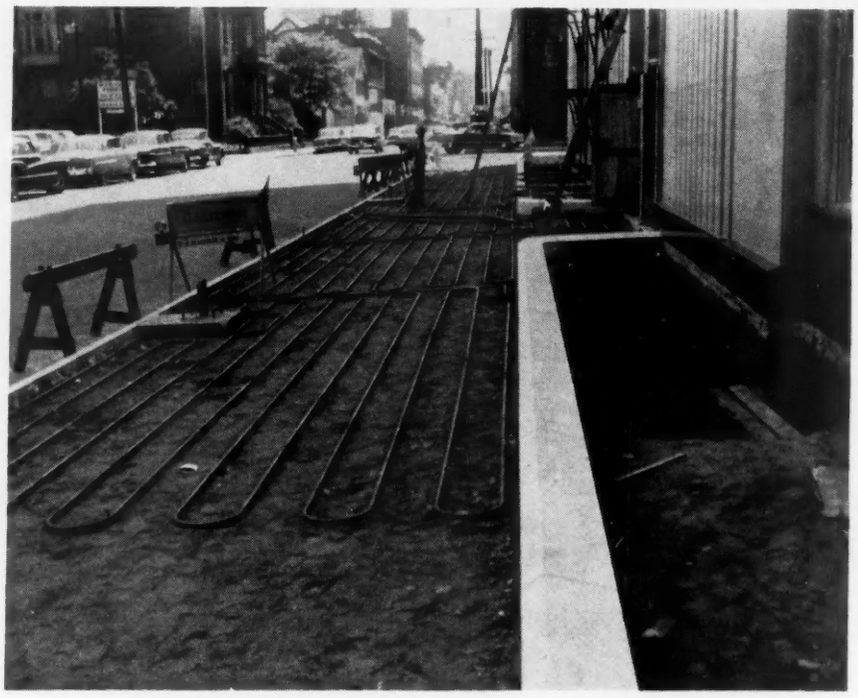
Regardless of snow depth, telephone customers and employes did not have the hazard of slippery ice, sleet or packed snow.

Wrought iron pipe was specified for the snow melting system by Hubbard, Lawless & Blakley, New Haven engineers. The coils, formed by the Cobra Pipe and Coil Co., Elmwood, Conn., provide maximum corrosion resistance. Internal damage to the sidewalk in the future is unlikely as wrought iron has the identical expansion coefficient of concrete.

Beneath the floors of three ground floor vestibules are wrought iron pipe coils. The radiant heat they provide melts any snow that is tracked into the vestibules during the early stages of snow fall, prior to complete snow removal by the snow melting system.

More than 30 tons of wrought iron pipe were fabricated into steam condensate lines throughout this new utility building.

Designed by Douglas Orr, New Haven Architect, the telephone building is near Yale University. It follows a modern trend of simplicity in lines with a satin-smooth cut limestone and glass exterior.



**Here is how the Cobra Pipe & Coil Co., Elmwood, Conn., formed the wrought iron pipe coils for a snow melting system beneath the sidewalks surrounding the New Haven equipment building of Southern New England Telephone Co.**

**There's snow on the tops of the cars and roofs — but snow is rapidly disappearing on the sidewalks surrounding the new equipment building of Southern New England Telephone Co. in New Haven, Conn. Heat from the sidewalk snow removal system has melted the snow, and the sidewalks are starting to dry.**

### Fibre-Glass Poles

THE LINE Material Co., Milwaukee, Wis., recently introduced a new line of fibre-glass poles and crossarm developed by Gar Wood Industries and distributed by the Line Material Company. At a joint press conference conducted by the Consumers Power Co., and Line Material Co., at Alma, Mich., members of the trade and newspaper press participated in a one-day session that included:

(A) Demonstration:—Loading and Setting of Wood Pole Vs. Loading and Setting of a Fiber-Glass Pole.

(Address:—"Significance and Potential Applications of Fiber-Glass Products," A. R. Waehner, director of product management, Line Material Co.)

(Address: — "Engineering Characteristics of Fiber-Glass Poles and Crossarms," C. W. Petersen, chief engineer, construction materials, Line Material Co.

"Pioneer Installation of Fiber-Glass Poles and Crossarms," narrated color movie.

(Address: — "Installation and Performance Observations," E. V. Sayles, general engineering supervisor, Consumers Power Co.)

According to Line Material representatives filaments of Fiber-Glass, having a tensile strength in the range of 100,000 pounds per square inch —double that of steel, are reinforced with epoxy resin, a new miracle adhesive to form tubular columns. These columns can be fabricated into any reasonable diameter and wall thickness to accomplish a desired end result. Yield and ultimate strengths of the columns are so close together, that they can be stressed to any limit short of actual failure; yet they will not distort nor set permanently.

The crossarms on the original line

at Alma, Mich., are 4-inch O. D. The 11-inch diameter poles are approximately the equivalent of 6-35-foot, class 6, wood poles, but Fiber-Glass poles weigh one-third to one-fifth as much as the wood members they replace, depending upon wood species. Company officials state this reduction in weight will bring about obvious installation economies.

Officials of the Line Material Co., comparing the wood pole class with the strength of the Fiber-Glass poles, said breaking strengths can be determined and the poles classified that way. "For example," they said, "if a Western red cedar pole, Class 5, 35-feet long were compared with an 11-inch diameter 35-foot pole of Fiber-Glass, we would find the wood pole has a calculated allowable bending moment of 51,300 foot-pounds for the 1900-pound Class 5 load. The Fiber-Glass pole, however, has a calculated bending moment of 113,500 foot-pounds or about 4300 pounds loading which is almost the 4500-pound Class 1 loading for wood poles. Lighter, but stronger, poles can be provided in Fiber-Glass. Fiber-Glass poles may have more deflection than wood poles, but nothing is published on deflection figures for wood poles. At the present time, the Forest Products Laboratory at the U. of Wisconsin has underway a series of full scale tests to correlate deflection, load, pole life, and pole strength. Publication of this rata is at least 1½ years hence.

According to Line Material Company officials, ability to take high impacts, heavy loads, and deflections without breaking will be advantageous. They claimed that "where wood poles snap under sudden heavy load and wind gust conditions, the Fibre-Glass pole will merely deflect. It is simpler to re-sag lines than to reset new poles."

C. W. Peterson, chief engineer, construction materials, Line Material Co,. stated that constant diameter has certain advantages. He said:—

"Think how easy it will be to extend pole length simply by collars and plugs plus a stub section. It is said to increase pole height by replacing the pole costs about $250 to $350. With Fiber-Glass stubs, that cost could be halved. As with crossarms, low weight of poles is a decided advantage. Lighter, more mobile equipment can be used, and think of the advantages in extremely mountainous terrain where poles have to be snaked in. For urban construction where mobile equipment cannot be used, two men can carry a Fiber-Glass pole to the erection site . . . "

**Consumers Power Co. linemen unload Fiber-Glass poles for the pioneer test installation near Alma, Mich. The poles were installed in February, 1955, as a co-operative experiment between Consumers and Gar Wood Industries.**

**Linemen attach hardware to Fiber-Glass pole and prepare to mount Fiber-Glass crossarm.**

### Printed Circuit Base Maker

THE PREPARATION of printed electrical circuits for etching can now be done by xerography, the Haloid Co., Rochester, N. Y., has announced.

In the new application, the powder image peculiar to xerography—a fast, dry, elctrostatic method of copying, heretofore used chiefly in office and graphic arts reproduction—is transferred from a XeroX selenium plate to a sheet of transfer paper, thence to the face of a copper-clad laminate. Here the powder forms a photo-exact resist pattern impervious to chemical attack.

Since, in the etching step which follows acid eats away all the copper unprotected by resist, the result is metal left only where specified by the original circuit drawing. The xerographic powder or resist, having accomplished its purpose is then removed by solvent, disclosing the completed print ready for dip-soldering to "pig tails" or other contacts.

# "The Positive Approach"

*(Continued from page 43)*

market it. A telephone company may still survive merely by having a monopoly on an essential item, but the demand for essentials is quite inelastic. To grow with the rest of our economy, we must seek also to meet the ever-growing demand for the non-essential.

Of course, in order to market anything effectively we must first create a demand for the product through some form of advertising.

The USITA realized the need for advertising by organizing an advertising committee a few years ago and now industry ads are regularly placed in some of the country's leading magazines. We can carry on our own advertising programs, too, by placing effective ads in our local newspapers and by advertising by direct mail by inserts enclosed with monthly bills.

Appropriate advertising material is available to you, also, from The Telephone Advertising Institute, an advertising agency that was organized especially for the purpose of furnishing advertising services to Independent telephone companies. If you are not familiar with this source of advertising material, you would do well to check your Association office for the information.

Looking to the future, and at the same time considering the millions of dollars spent during these past few years in an effort to bring our telephone service up to a modern state, it would be difficult to think that our industry is faced with a complete overhaul, yet, that is what is predicted. Not tomorrow, but surely it will come. Ten thousand lines of equipment which now require many feet of floor space will some day take up just a corner of the room.

New developments in the industry are so numerous and involved. Such things as direct distance dialing with automatic toll ticketing are already common practice and will inevitably become nationwide. Calls that once required minutes to complete can now be made in the matter of seconds with complete privacy. Mobile radio-telephone service has been in use for some time and it is not inconceivable to picture a majority of our 161 million people taking advantage of this modern convenience some day and have telephones in their automobiles.

The transistor, the solar battery, switching devices with printed circuits which eliminate connecting wires, "over the horizon" micro-wave and carrier circuits are some of the new terms we hear today. They will offer great advantages in the future of telephony.

The most novel development of all may concern the telephone pole. A new fibre glass telephone pole has been developed and is now being tested. If successful, these plastic poles may well be featured along the new highways. The poles are light weight and hollow and therefore should prove less opposition to a wayward automobile. Linemen will no longer need their spikes, but will have to bring along some removable steps. Plastic poles can be produced in any color, so you might start thinking what would go well with the landscape in your area.

In speaking of things to come in the electronic telephone world, Dr. Harold Osborne, who recently retired from Bell Laboratories and is well known to many Independents, may have been exaggerating a little but he said this, "In the ultimate whenever a baby is born, he will receive a number and when he is old enough he will receive a gadget with a small speaker and a television screen on one side and 10 buttons on the other. When he wants to talk to his friends any where in the world, he will punch his friend's number on the key box. When his friend answers he will hear his voice and see his face on the screen in color and in three dimensions, and if he doesn't answer, he will know his friend is either dead, or he hasn't paid his telephone bill."

We may want to discount this theory just a little but, nevertheless, an indication of how close we are to some of this new development lies in the fact that The Federal Communications Commission has already taken into consideration plans for the installation of the new type fully transistorized electronic telephone central office equipment. It has established new and higher depreciation rates for some Bell System Companies on equipment to be replaced.

We, as Independent telephone operators, have great opportunity as well as great responsibility for the future development of the telephone industry. The Independents generally serve rural and suburban areas rather than large cities and the population growth and trend may well be away from the cities to the suburbs.

A major purpose of our annual conventions is to give us all a glimpse at the future of our industry. The pooling of our old experiences and new ideas, the informed talks of convention speakers, and the displays of our manufacturers and suppliers stimulate mutual interests which continue to develop after the conventions are over. All of this plus a "positive" approach to the industry's immediate problems will, I believe, make the many opportunities described by this paper "bear fruit" even more rapidly than I have dared suggest. — *(Adapted from a paper presented by Mr. Walker at the* 1956 *convention of the New York State Telephone Assoc.)*

**EDITOR'S NOTE: In answer to the requests of many readers we have reprinted L. A. Hodson's articles on "The Independent Company and Nationwide Toll Dialing." A booklet containing the entire series (six sections) is now available. Cost of the booklet is 75¢ per copy. Send orders direct to Reader's Service Dept., Telephone Engineer Publishing Corp., 7720 Sheridan Road, Chicago 26, Illinois.**

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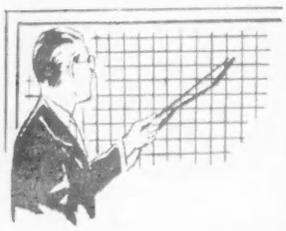


# telephone ASSOCIATION activities

## Oregon-Washington Independents Hold Annual Meeting at Portland

THE 1956 joint convention of the Oregon and Washington Independent Telephone Associations was held at the Multnomah Hotel, Portland, Ore., May 31, June 1 and 2. At the separate business meetings of the associations which concluded the 2½-day affair, officers for 1956-57 were elected:

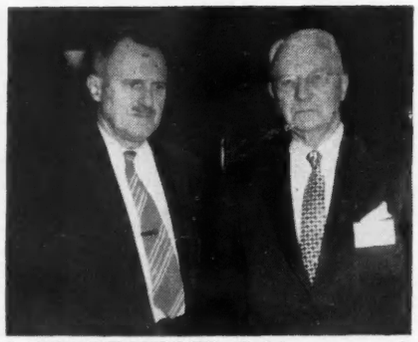
*Washington*:

President—W. F. Barnett, Vashon Telephone Corp., Vashon, Wash.

Vice President — Maurice Hull, Peninsular Telephone Co., Forks, Wash.

Secretary-Treasurer—J. W. Baker, General Telephone Co. of the Northwest, Spokane, Wash.

A. J. Zimmerman, Seattle, remains in the capacity of executive director. Re-elected as trustees were: W. F. Barnett, Vashon; Lee Bolles, McCleary; Don Childers, Sunnyside; L. M. Curry, Yelm; Ray Dalton, Everett; Hugo Finholm, Gig Harbor; B. L. Gaines, North Bend; Al Gately, Orting; Maurice Hull, Forks; W. R. Jarmon, Spokane; W. C. Mumaw, Aberdeen; Wm. G. Pottratz, Cowiche; J. R. Rudolph, Ellenburg; and G. J. Stover, Mount Vernon.



**LAMBERT MILLER (left), new president of the Oregon Independent Telephone Association, and LESLIE A. GRITTEN, secretary-treasurer.**

*Oregon*:

President—Lambert Miller, Sunnyside Telephone Co., Clackamas, Ore.

Vice President—L. E. Scott, Linn County Telephone Co., Lebanon, Ore.

Secretary-Treasurer—L. A. Gritten, West Coast Telephone Co., Everett, Wash.

Elected as directors were: G. E. Baker, Scappoose; M. F. Berglund, De Lake; Lowell Brown, Silverton, J. Cavanaugh, La Grande; Raymond M. Crockett, Redmond; Lyle Cross, Beaverton; Rodney Cummings, Philomath; Floyd Day, Estacada; Earl Dean, Hood River; John Dillard, Nehalem; Don Gibbs, Cave Junction; D. O. Hood, Medford; Ernest R. Hood, Portland; Leon L. Roome, Halsey; and H. O. Wiswell, Haines.

The Northwest Chapter of the Independent Telephone Pioneer Association held its annual meeting during the convention and elected for the ensuing year:

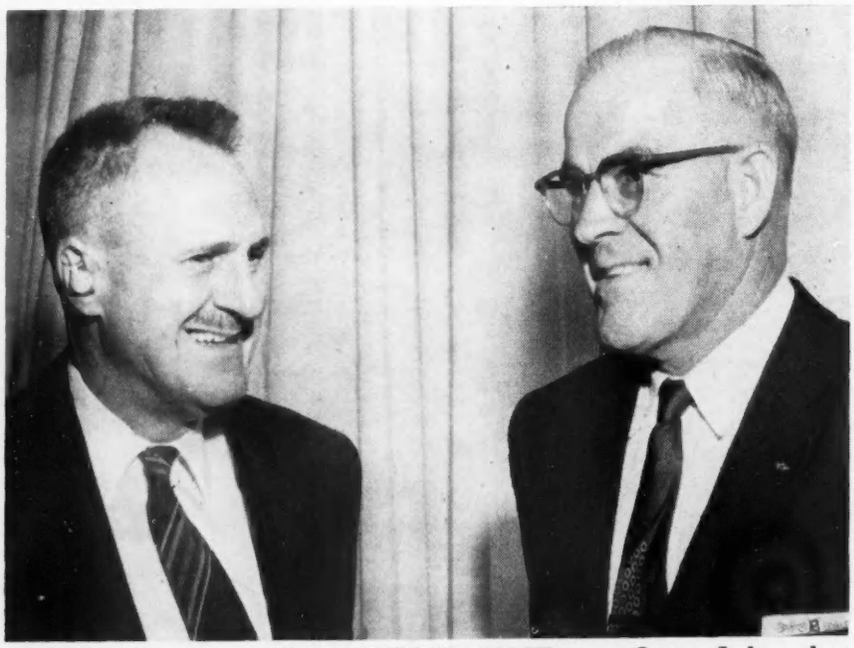
President—Charles E. Hoy, Spokane, Wash.

Vice President—John Cavanaugh La Grande, Ore.

Secretary-Treasurer—J. W. Baker, Spokane, Wash.

Executive Committee—Walter A. Boro, Spokane, Wash., Lowell Brown, Silverton, Ore., Ernest R. Hood, Portland, Ore., W. C. Mumaw, Aberdeen, Wash., and Norman A. Howerton, Ilwaco, Wash.

The booming Pacific Northwest, the fastest growing section of the United States, where everything that



**Newly-elected presidents: (left) LAMBERT MILLER, pres., Oregon Independent Telephone Assoc., and W. F. BARNETT, pres., Washington Independent Telephone Association**

happens is "bigger and better than ever before" made good its boast in regard to the convention. It was larger; nearly 500 people attended; it lasted two and one-half days instead of one and one-half as in previous years; and if interest is any criterion of quality, it was better, for every meeting from first to last was packed.

Much of the keen interest was due to the interpretation of the current Bell-Independent struggle over toll compensation by two of the men who have spear-headed the U.S.I.T.A. fight for better and more realistic schedules.

### *National Affairs*

JOHN DILLARD, president of the Oregon Association, presided at the opening meeting on May 31 and introduced Merle M. Hale, president of the United States Independent Telephone Association, who described how "The U.S.I.T.A. Works for You."

Mr. Hale said that the U. S. Independent Telephone Association serves as a first line of defense on the legislative front. It studies legislative proposals affecting the Independent telephone industry, and makes appearances, when such appearances are dictated by necessity, before Committees and Members of Congress. Appearances are made from time to time before government agencies on matters affecting companies, and informal liaison is maintained with *all* government agencies whose activities concern the telephone business.

"The Association," he said, "through its staff and committees, conducts studies and research into various phases of telephone operation. Our organization is a source of exhaustive information, assisting in nearly every aspect of Independent telephone company operations. In addition to the full-time staff in the Washington office, committee members and other qualified persons are available for consultation on specific problems confronting member companies."

After presenting a capsular review of the legislative situation as it looks today, Mr. Hale emphasized that — "telephone people will continue in the future as we have in the past to travel an unusual road."

"In a nation where big business and little business drive down a fast, competitive highway, we have been leased a private way," he said. "To us the people have singularly granted a trust and a power. On our shoulders rests a great deal of the responsibility to give the telephone-using public the round-the-clock, dependable telephone service they need. In our hands is a power to bind them together in friendship, trust, and common understanding."

"Over our switchboard go their hopes, their fears, their sorrows, their needs. Across our lines they order groceries from the corner store, close business deals, make appointments, send tidings of birth and deaths. With our help they summon doctors when they're sick, policemen and firemen when they're in trouble. We have taken part in the shaping of the law, the progress of commerce, the growth of schools, and the courtship and marriage of two generations."

"Since the birth of the industry, telephone men and women have dedicated themselves to the fulfillment of this our public trust. They have developed within themselves and the telephone team a spirit of service and helpfulness that has surmounted fire, flood, and disaster. They have handed down to us a heritage rich with their courage, their loyalty . . ."

"We, the telephone people of today, are vested with the responsibility of carrying on this trust. We will make mistakes, for it is human to err. But in the long run, how we do our individual job, how we bear our individual responsibility, will determine how we achieve our trust. For in the last analysis we do not work for the telephone company. We are the telephone company . . . . "

### *Customer Toll Dialing*

W. R. JARMON president of General Telephone Co. of the Northwest, Spokane, spoke on the subject of Customer Toll Dialing.

"From the time the telephone in-

**Over 400 attended the Annual banquet of the Oregon-Washington Telephone Associations.**

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dustry first began to appreciate the advantage of automatic dial telephone systems," he said, "the urge has been to make the usefulness of the dial even more far-reaching. Development of facilities for customers to dial through one exchange into another was the natural result of this demand. With this development was born the dream, now a specific objective, of ultimately placing every telephone on the continent directly 'on the dial' of every other instrument. This is a long range program, involving research, development and investment over a period of years."

Mr. Jarmon emphasized that while the implications of eventual nationwide dialing are intriguing to most telephone companies, there are other Customer Toll Dialing considerations of more immediate concern to most of us.

"The immediate need," he said, "is to provide this service first to nearby points and to industrial and trading centers—to communities which are geographically scattered but having mutual economic, social and political ties and then extend the service to more distant points to meet users' needs.

"Population increase, the migration of both people and industry, and the shift in geographic distribution of population have all had a tendency to increase the scope of the area throughout which our customers have economic, social and political interests. These ties now cut across city, county, and state territorial boundary lines. The integration of these significant facts in the telephone industry planning and thinking will most likely result in the adoption of Customer Toll Dialing as well as other faster methods by which our customers can dial one another directly.

"Extending the points to which a subscriber may call by dialing his telephone provides the customer with many advantages. It is, of course, first of all a highly desirable situation for the individual. Secondly, he has a broader direct calling area. Third, he can make these calls speedily and accurately."

"Customer Toll Dialing," Jarmon concluded, "is another of the telephone companies' contributions to the changing pattern of America's living."

### *Regulation*

THE PRESIDENT of the Washington Independent Telephone Association, W. R. Jarmon, presided at the June 1 session and introduced Charles Heltzell, Public Utilities Commissioner of Oregon.

Discussing fundamentals of the telephone business and the office of regulation, Commissioner Heltzell stated that the economics of the utility business compel the need for monopoly.

"Facilities to render utility service require too great an investment per customer not to have blanket service in a given area," he said. "Few of us could afford utility serv-

**HARLEY BARBER (left) retiring president of the Northwest Chapter, Independent Telephone Pioneer Association, hands gavel to new president, C. E. HOY, Spokane, Wash.**

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**Offer "Something Extra" for Extra Profits.** Bright, cheerful Reynolds outdoor booths are a credit to any location. Their friendly, inviting atmosphere, interior roominess and perfect ventilation stimulate *additional* paystation usage. Go after this "bonus revenue"—without reducing the number of calls from existing indoor locations. Write for complete specifications and revenue-producing data today. *Address: Reynolds Aluminum Fabricating Service, 2000 South Ninth Street, Louisville 1, Kentucky.*

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ice in a completely free market. Simple economics dictate the end result."

He emphasized that the utility business is one that can only operate satisfactorily under conditions of monopoly in order to assure service to the public at an attractive price.

"It should be emphasized, however," he said, "that the basic factor involved is in service rather than the product itself. For instance the ordinary sale of oil is not considered to be a utility business, but put that oil in an interstate pipeline and the picture is changed. Much the same is true of electric energy, its distribution and sale through transmission and service lines involves a utility business but the sale of storage batteries does not. So you may say that the utility business involves a *service* to the public of a basic need through a system utilizing extra-ordinary privileges for the economic betterment of the public and which by all that must be in the form of a monopoly . . . . "

Mr. Heltzell said that modern regulation of utilities follows a rather consistent pattern throughout the United States. It covers principally the rates, services and practices of the industry. The Commissions evaluate the properties of each utility and keep track of new properties which are added and of worn out properties which are discarded. Rates which customers pay are designed to produce a return on the investment of its utility properties used and useful.

"Investments of savings made by private citizens are thus required," he said. "To attract such investors the opportunity for a return on investment must be reasonably insured. Both customers and investors are members of the public. Volumes have been and will be written on the formulas. The Oregon Public Utilities Commissioner has long used the original-cost approach. His orders have endeavored to provide an average return of approximately 6 percent, more or less, on original cost less depreciation."

Mr. Heltzell emphasized that essentially, rate making is price fixing. However, commissions do not guarantee profits to a utility, they simply provide a formula by which a utility may earn a fair return if it is properly managed.

"Regulatory commissions," he said, "must likewise exercise jurisdiction and close scrutiny over utility service, schedules and other tariff provisions; they arbitrate daily between the customer and the company. Sometimes a Commissioner must weigh a service problem and a rate problem together, whence arises a question like what comes first: the chicken or the egg.

"The question of what are reasonable rates and what is proper service in different circumstances is susceptible to differences in opinion among the customers, the investor and management, The Commissioner decides —and frequently pleases no one. But if we are too far wrong in anyone's belief we should be challenged in orderly fashion by appeal to the courts —the final arbitrer . . . . "

### *Toll Compensation*

A. W. LAMBERT, vice president of West Coast Telephone Co., who is chairman of the special U.S.I.T.A. subcommittee responsible for making "A" and "B" studies in connection with toll settlement negotiations, discussed the recently achieved settlement with the Bell System.

Mr. Lambert presented a resume of comments, past negotiations and statistics on toll compensation and covered the preparation and methods used in the recent USITA nationwide separation study upon which revised cents-per-message schedules are based and their application. These revised settlement arrangements, and the cents-per-message schedules, have the recommendation of the USITA through its Toll Compensation Committee to member companies, and the recommendation of the American Telephone & Telegraph Co. to Bell associated companies for use in determining toll settlements between Independent and Bell companies.

J. T. Naylor, vice president and general manager of the Philippine Long Distance Telephone Company, Manila, P. I., formerly an official of the Oregon Public Utilities Commission, received a warm welcome from his many friends at the convention. Mr. Naylor's speech, the last on the June 1 program, was of extraordinary interest. He blended clever and humorous description of Oriental telephone problems with trenchant observations on social and political affairs in Japan, Indo-China, Thailand and the Philippines.

Mr. Naylor brought with him from the Philippine Long Distance Telephone Co. a very happy gesture in the form of many hundreds of hand lin-

en handkerchiefs, enough and to spare for everyone who attended the convention. They were accompanied by a card from Manila to Portland bearing the greeting, "Mabuhay," the Philippine equivalent of "Aloha."

The Ladies' Luncheon was held Friday noon in the Junior Ballroom, staged by a committee headed by Mrs. Earl Dean of Hood River, Oregon. It was a most successful affair. About 130 were present.

The afternoon was devoted to two open forums, for Commercial and Accounting affairs.

A panel consisting of A. D. Scripture, Chairman, West Coast Telephone Co. Everett, Wash.; Lowell Brown, Valley Telephone Co., Silverton, Ore.; W. E. Bishop, Oregon-Washington Telephone Co., Hood River, Ore., and Clyde H. Dickey, West Coast Telephone Co., Everett, Wash., discussed commercial problems presented by the audience, such as the advisability of distribution of toll credit cards for residence subscribers.

It was the consensus of the entire group that toll credit cards should be distributed only to residence subscribers who have a definite need for them.

Collection of customer accounts was one of the more popular subjects for discussion, one of the phases being the difficulty encountered by some companies in collecting Ground Observation Post (GOP) accounts.

Members of the panel urged that service for GOP's should not be established before receiving proper Air Force authorization in writing. Other subjects discussed were methods of machine billing determination and establishment of private line rates, the advisability of obtaining one month's rental and service connection charge in advance of the installation of service and obtaining a deposit from customers whose credit rating was not satisfactory.

At the Accounting forum, an interesting round-table discussion of accounting problems and items of interest was held. A few of the subjects discussed were — recent rulings by the Comptroller General of the United States in regard to billing of telephone service to Federal Government agencies, continuing property records, record keeping requirements for small companies, and accelerated depreciation.

Earl Thierer, General Telephone Co. of the Northwest, Spokane, Wash., acted as chairman; and Lamar Gaines, Cascade Telephone Co., North Bend, Wash., acted as assistant chairman.

The discussions were lively and were participated in by staff members of the Oregon and Washington Public Service Commissions as well as public accountants experienced in telephone accounting.

Separate open forums for Plant and Traffic discussions made up the Thursday afternoon program. Both were well attended and excellent discussions resulted.

The Plant Open Forum was conducted with the panel consisting of Arleigh Q. White, chairman, General Telephone Co. of the Northwest, Spokane, Wash.; John C. Maurer, Pioneer Telephone Cooperative, Inc., Philomath, Ore.; and Maurice Hill, Peninsular Telephone Co., Forks, Wash.

Panel members discussed new products currently being used in their respective company's operations, describing installation techniques and problems, performance factors, anticipated life and similar items of interest. Many of those attending described their experience and observations and assisted in providing answers to the many questions that were asked.

Of particular interest were discussions on rural distribution wire, rural line carrier, long span insulated paired wire, and central office equipment maintenance practices. Actual installations of these items were described with emphasis on the advantages secured through the use of these new products and practices.

At the close of the Plant Forum, Don Childers, Oregon-Washington Telephone Co., Hood River, Ore. and D. A. Perigo, West Coast Telephone Co., Beaverton, Ore., joined the panel for further discussion on the use and application of information available from traffic meters installed in central office equipment. The importance of securing these statistics was stressed for use in supporting proper utilization of existing equipment as well as the anticipation of need for additional equipment and the analysis of service quality.

The Traffic Panel was conducted by Don Childers of the Oregon-Washington Telephone Company assisted by D. A. Perigo of the West Coast Telephone Company. In discussing dial switch (or link) requirements, it was concluded that accurate peg counts and overflow records were the only satisfactory basis upon which to base estimates of the time when additional switches (or links) will be required in order to maintain satisfactory service. Discussion of force adjustment in small offices developed the possibility of providing an office "coefficient" through observation of the operators required during the various hours of the day as related to the calls handled. The matter of ticketing privileges for tributary toll offices was discussed with the result being a conclusion that when a tributary toll office is privileged to ticket to a toll center it should also ticket to the dial tributaries of that toll center since the method of operation is identical.

About 400 sat down Friday evening to a banquet, followed by excellent entertainment, in the Grand Ballroom of the Multnomah Hotel. Tom Lawson McCall acted as toastmaster. His introductions revealed that telephone men from Alaska and British Columbia, as well as from all over the United States, were among the visitors.

The Saturday morning session opened with an address by Ralph Davis, Chairman of the Washington Public Service Commission.

After a few preliminary remarks, Chairman Davis advised the assembly that he had come to the convention intending to present a prepared speech on the subject of the legal status of telephone companies' territorial rights in Oregon and Washington.

Since arrival, his conversations with many members of the associations had indicated a widespread interest in the personal philosophy of the members of state regulatory commissions. Particularly, there seemed to be an interest in the commissioners' personal views upon the proper scope of the regulatory functions in the utility field. It was his view that a public official's thinking upon a subject closely related to his official responsibilities was a matter which the affected public was entitled to know. Consequently, he decided to speak extemporaneously upon his own views as to the proper relationship between government regulatory agencies and the industries under their jurisdiction.

First of all, he stated that he thought that the principle of government ownership of private industry or govern-

ment intervention with and control of private enterprises, was distasteful and undesirable as a matter of principle. He believes that the most desirable and practical type of business regulation is natural competition among privately owned and privately controlled enterprises. There are, however, certain exceptions to the rule. An exception is necessary (1) in any field where monopolies exist because of the nature of the enterprise, or (2) where the welfare of the general public is so entwined with the operation of the industry; that segregation of the two different interests is impossible. Both exceptions apply to the telephone industry; consequently, government regulation however distasteful as a matter of principle, is an economic and social necessity.

There must be strict limitations upon the authority and functions of state and federal regulatory agencies. These limitations should be imposed both by law and by administrative policies. Regulatory agencies should never presume to substitute the judgement of its commissioners or staff experts for that of company management in matters pertaining to the internal operation of a utility company.

The regulatory function should be limited to the establishment of general policies and the insistence upon accomplishing a particular result, but should not extend to control over the details of company operation. It is proper for regulatory commissions to establish, for example recognized accounting practices and to establish a theory or formula to be used in establishing rates. It would be most improper, however, for a commission to demand that company establish certain work schedules or a certain type of public relations program. These are merely examples of the distinction between general policies affecting the public and policies of internal management. The extent to which a regulatory agency should go in the latter field, is to prepare itself in such a manner that it may offer advice and guidance to company management upon managerial policies if and when a company should request it. Commissions should not, however, attempt to impose upon the companies, either directly or indirectly, its own theories of management practices. The following rule of thumb should be an adequate guide for regulatory philosophy: Impose only so much regulatory control as may be necessary to insure that the industry will offer reasonably good service to the public at the cheapest possible rates which will net a fair rate of return.

**"Money isn't everything, but it helps until everything comes along."**

He then discussed the matter of political and personal pressures upon regulatory commissions. He said that he thought to most commissioners, attempts to exert such pressures to accomplish a particular result was repugnant to their moral and ethical senses; and that any attempt on the part of a commissioner to bargain and trade his integrity and self-respect for temporary political gain, is not only morally wrong, but most illusory. Any such gain would be certain to be temporary, and in most cases, would not materialize at all. Furthermore, the job of deciding regulatory matters upon their merits is extremely difficult at best, and if members of the commissions permitted personal and political considerations to enter into those deliberations, the burdens of the job would be magnified many times.

The proper position of state regulatory commissions is about midway between the public and the regulated industry. The commission is, in effect, the arbitrator or referee in all matters pertaining to rates and services. It has the responsibility of making orderly and fair disposition of industry vs. public controversies on these questions. Commissions must keep advised at all times of the changing needs of society and must work out rules and formulas whereby the industry can most conveniently and economically meet those needs. It is a continuing process of searching for some common ground upon which the owners' desire to operate for profit and the public's desire for cheap and adequate service, can meet.

There was then a short discussion of his observations of the personal qualifications of most commissioners. He had observed, generally, that commissioners are not technicians, but are trained in public affairs and governmental activities. Virtually, all of the commissioners he had observed had a thorough understanding of law and the legal processes of government. A majority, but not all, of those commissioners were lawyers by education, although a legal education is not essential. Apparently most states have reached a happy medium in selecting for membership on the commissions, men who have considerable ability and experience in making policy decisions affecting the public, and those men, in turn, employed technical staffs with specific training and background in the industries which are regulated, upon whom they rely heavily for advice and guidance in technical matters.

An outstanding speech and demonstration, "The 'Publics' in Public Relations," was presented by Lawson V. Smith, vice president and general manager of the Mountain States Telephone & Telegraph Co., Phoenix, Ariz. Mr. Smith said: "The purpose of a public relations program is to build, during years of smooth operations, a reservoir of good will which can be tapped when rough years come along. This compares exactly with a financial policy which calls for storing up a 'rainy day' surplus during years of prosperity."

Smith pointed out that most individuals find themselves, at various times, belonging to more than one of these groups, but that their reactions will vary in accordance with the basic interests of the groups.

"For this reason a good public relations program must contain different approaches to the different segments of people. Hence, in developing a program, it is helpful to be continually aware of these 'publics' within the public," Smith said.

The talk ended with the thought that business has no choice as to whether public relations is or is not one of its problems. That it is and always will be a management problem was called inevitable by the speaker.

"Management does have a choice, though, as to whether those relations shall be good or bad, and if a business is to survive, it had better choose the former," he concluded.

*Adapted from material provided by L. A. Gritten, sec.-treas., Oregon Independent Tel. Assoc.*

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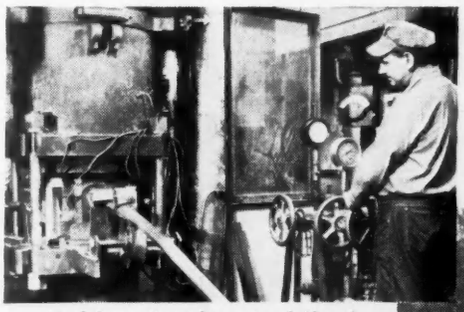

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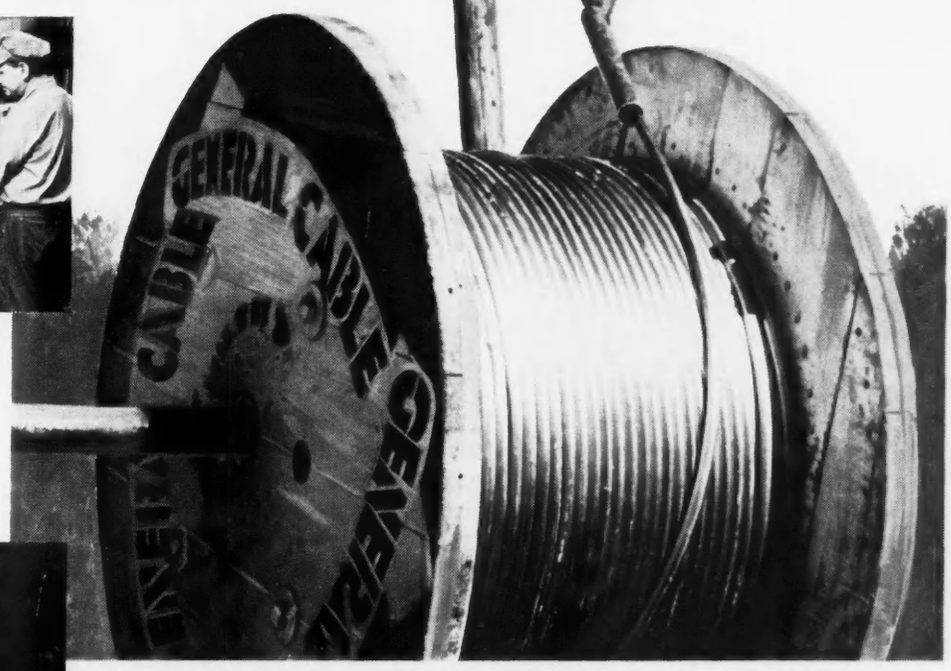


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**California conventioneers (from left to right) C. O. LINDEMAN, of the Pacific Telephone & Telegraph Co.; JACK MAGUIRE, president of Kern Mutual Telephone Co.; TOM BROOKS, chief administrative officer, city of San Francisco; RICHARD HAMBROOK, executive vice-president of The Pacific Telephone & Telegraph Co.; and R. J. HADDEN of The Pacific Telephone & Telegraph Co., catch up on the latest telephone news between convention sessions.**

# Fred Mac Gougan Elected President of The California Independent Telephone Assoc.

By GEORGE A. BRIDGES

COOL, CRYSTAL-CLEAR San Francisco weather greeted the 500 telephone industry members who attended the 37th annual convention of the California Independent Telephone Association at the Fairmont Hotel.

On hand to welcome the delegates, the Honorable George Christopher, mayor of San Francisco, opened the first session of the 3-day convention program and introduced Richard D. Crowe, president of the California Independent Telephone Association who highlighted CITA activities which have occurred since the 1955 convention.

After paying special tribute to Neal Hasbrook, secretary of the association and his assistant, Mrs. Margaret Eaken, for their efficiency and untiring effort, Crowe said:—"One of the outstanding achievements of the USITA during the year has been the conclusion of the long and involved cost study procedures which finally resulted in the new cents-per-message schedule which is in the process of being offered to the industry by the Bell System companies."

In speaking of settlements with connecting companies, Crowe said: "The agreements, incidentally, recognize the difference in cost between various operations such as manual, dial terminal-per-line, and dial terminal-per-station. However, these new agreements do not take into consideration variations in cost between geographical areas in the United States. The rapid growth of California population is requiring unusually large investment in new plant and our construction and operating costs are higher than those in other areas.

"For this reason many companies in California are deciding to settle with the Pacific Company on an individual 'cost study' basis which requires a separations study to determine the full cost of handling toll service including a fair rate of return on the toll portion of the plant investment. These individual cost studies reflect the so-called 'Full Charleston Method' which has been required by the California Public Utilities Commission, and substantially greater amounts of toll revenue have been obtained by companies settling in this manner."

In conclusion, Crowe stated: "It has been a pleasure to serve with the other members of the Board of Directors and the Association Secretary and his assistant, and with the various committees and regular and associate members of the Association. Although we have one of the smallest memberships of the associations in the country with only 46 members, our members serve more stations and have a greater plant investment than any other association membership in the country. I think our association is performing a fine service to its members, and I believe it is proving itself to the whole country as an outstanding state association."

### *Current Problems*

THE SECOND speaker, Peter E. Mitchell, president of the California Public Utilities Commission, who based his talk on a review of old correspondence files and records written by present contemporaries, expressed the opinion that the utility problems that exist today are very much the same as those which occurred in the past.

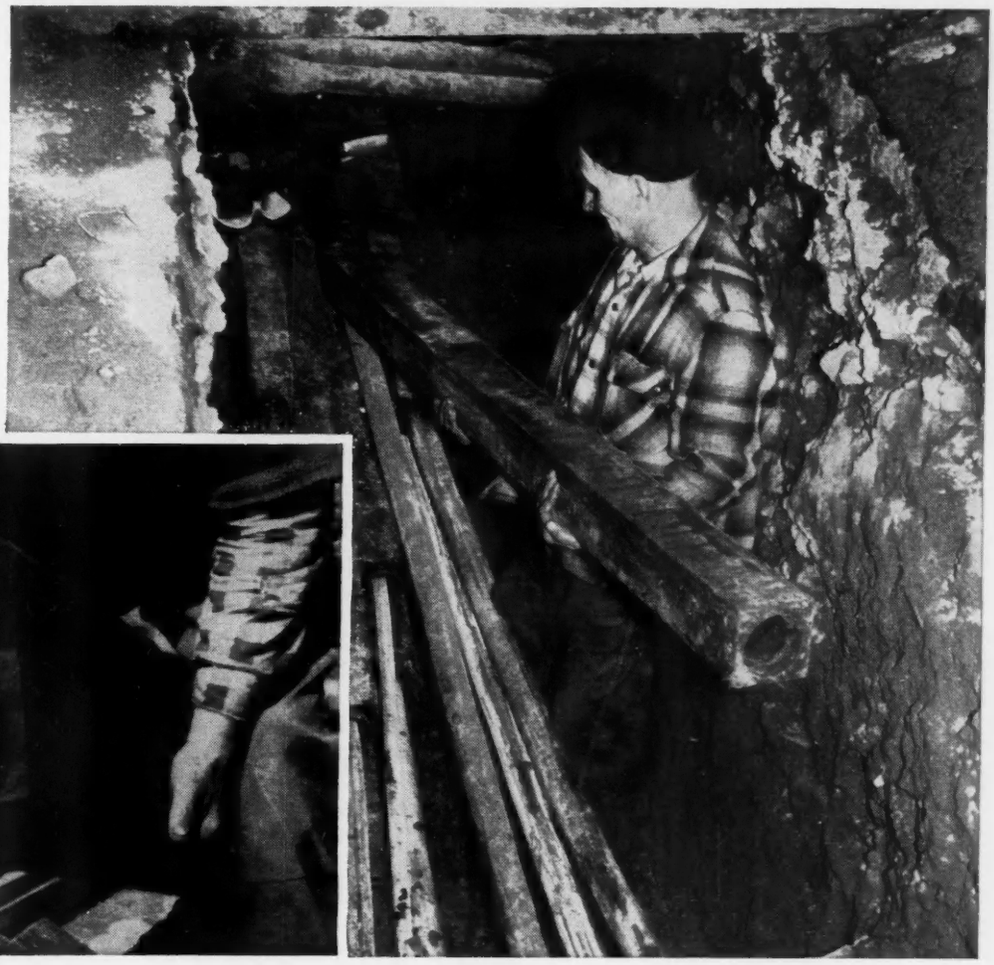
Speaking of current PUC problems, Mitchell said: "The Commission's toughest job is to reconcile and balance the customer's costs to the utility investors. As a public trustee we are not going to be over-generous in giving out higher rates, but neither will we starve a public utility financially, or it becomes a public 'futility'."

In speaking of Independent telephone companies in the State of California, Mitchell said: "There is a current trend to reduce the number of Independents in our state. At one time there were 252 companies, whereas a current tabulation reveals approximately 56, (46 of which are members of the CITA).

"It has become more apparent every day that utilities are concerned with a 'buyers' market. It is not a matter of what we want to give them, but what they want to buy," he continued. "Therefore, it is our responsibility to keep abreast of the times and to make a special effort in finding out what the public wants."

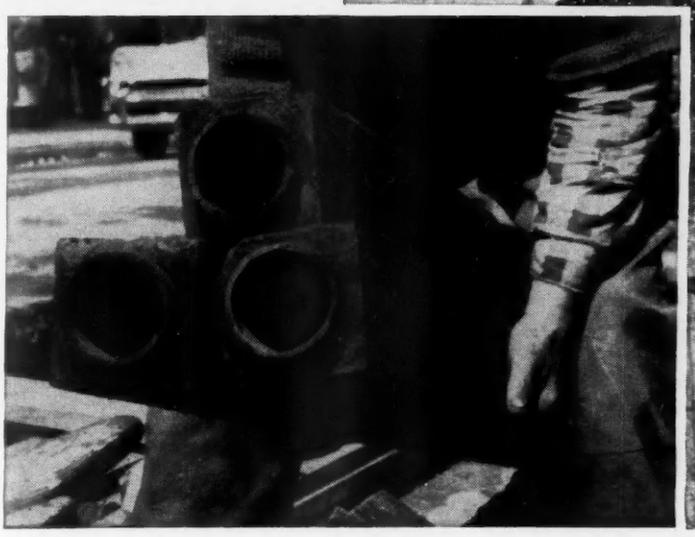
Mitchell stressed that over one half of the complaints that reached the Public Utilities Commission were concerned with telephone companies. Of these complaints, "rates" and "I want a telephone," were the most loudly voiced, followed by transmission complaints and extensions. "To meet this challenge," he continued, "requires good planning, quality and quantity."

In conclusion, Mitchell said, "Whatever problems arise in a Public Utility, they can usually be solved by three ingredients; money, con-



Telephone company employee removes 63-year-old pressure-creosoted wood conduit.

Close-up of 63-year-old conduits being removed.



# Pressure-creosoted wood conduits still in good condition after *63 years underground*

To make room for additional telephone cables, an Eastern telephone company dug up cables that had originally been installed in 1893. The pressure-creosoted wood conduits through which these cables ran were found to be in excellent condition.

"If we didn't need extra cables to meet demands," explains a company engineer, "we would have continued to use these same wooden conduits; they are still serviceable for a good long time. In fact, we still have plenty of creosoted wood conduits in use. In some of the swampy areas, wood conduits are superior because the wood provides flexibility that prevents breakage under such adverse conditions."

Another engineer adds, "Back in 1893, pressure-creosoted Southern Pine was found to be the best material available to withstand years of exposure to moisture underground. We still replace with wood conduits in some areas, depending on the soil."

This 63-year-old record of underground service, proved and spelled out, means that pressure-creosoted wood offers assurance of long life. Applied to utility poles, the pressure-creosoted treatment provides long-term protection for overhead lines and cuts the costs of maintenance. These advantages explain why out of 6.6 million poles treated last year, *over 5.1 million were pressure-creosoted.** The next time you order poles and crossarms, get the assurance of pressure-creosoting. And for more information on the quality preservative—USS CREOSOTE—get in touch with the nearest United States Steel Chemical Sales Office, or write directly to United States Steel, 525 William Penn Place, Pittsburgh 30, Pennsylvania.

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struction and service. The Utility must make a certain amount of money to attract investment. Construction, of course, is dependent upon the amount of investment the company attracts and finally, service, though an intangible, is the most important function in satisfying the customer."

### *Report From USITA*

FINAL SPEAKER of the first session, Clive W. Haas, vice president of the United States Independent Telephone Association, opened his speech by describing the many freedoms American citizens, have and how they must protect them.

"How easy to become negligent concerning our free enterprise system of economy," he said." and allow the State of California to be allotted a band of the radio spectrum to be used in competition with existing facilities, or huge co-ops to be formed for the purpose of serving people with telephone service who might possibly be served by existing companies, either with or without REA loans, and thus take that part of our telephone business out of the private enterprise field. How easy it would be to become negligent and allow the Federal government to pass laws allowing wire-tapping, and after that, the states, the counties, and the city police, and thus destroy much of the value of our telephone service."

Mr. Haas emphasized that in every session of the State Legislatures and the Congress there are bills introduced which could be very damaging to the Utilities.

"We are extremely vulnerable to being used as whipping boys," he said." Every one of these proposed laws has to be opposed; defeated if possible, or amended to remove some of the objectionable features. Other laws have to be proposed and guided through the law-making bodies."

Discussing activities of the USITA and its efforts not only in behalf of the telephone industry, but its efforts on the firing line of the battle to preserve the Free Enterprise system, Mr. Hass stressed that: the Association serves as a first line defense on the legislative front.

"It studies legislative proposals affecting the Independent telephone industry," he said, "and makes appearances when such appearances are dictated by necessity before committees and Members of Congress. Appearances are made from time to time before government agencies on matters affecting our companies and informal liaison is maintained with *all* government agencies whose activities concern our business . . . . "

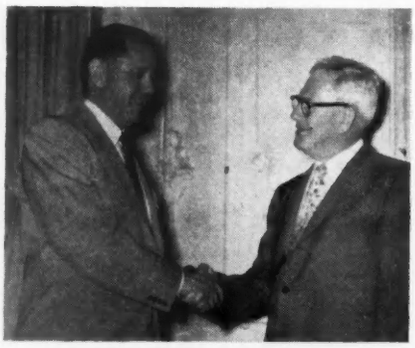
**CLIVE W. HAAS, vice president of the United States Independent Telephone Association addressed the assembly during the opening session of the California convention.**

### *Panel Discussions*

THE MORNING and afternoon sessions of the second day were devoted to four panel discussion groups dealing with commercial, plant, revenue accounting operations and methods and traffic..

Discussing commercial operations, Allan Stacey, of the Sunland-Tujunga Telephone Co. presided as chairman and was assisted by Doreen Becot, The Pacific Telephone & Telegraph Co.; Norma Cerbin, Sanger Telephone Co., and Geraldine Rademaker, The Pacific Telephone & Telegraph Co.

As an added feature, an entertaining and informative speech presented by Alfred J. Barran, director of public relations for General Telephone Co., entitled "The You In Public Relations" was presented. In this talk, Barran, with the aid of amusing illustrations, discussed the basic elements which go to make up a successful public relations program for almost any type of business.



**RICHARD D. CROWE, retiring president of the California Independent Telephone Association shakes the hand of the new president, FRED MacGOUGAN, telephone division manager of the California Water and Telephone Co., Monrovia, who accepted the honor at the last session of meeting.**

J. Curtis Newman, of Coachella Valley Home Telephone & Telegraph Co., led the Plant round table. Others participating were J. H. Bowman, Superior Cable Corp.; J. S. Daniels, The Pacific Telephone & Telegraph Co.; C. C. Davis and Louis D. Yard, both of General Telephone Co. of Calif.

Leader of the Accounting panel, Keith E. Vine, of the California Water & Telephone Co., was assisted by Leland Dowden, San Joaquin Telephone Co.; Blair Hutson, State Board of Equalization and Frank Peter, General Telephone Co. of Calif.

The Traffic panel was led by Owen G. Jarboe, General Telephone Co. of Calif., assisted by Ann C. Peterson, Gilroy Telephone Co.; Jerome P. Berenbeim, General Telephone Company of Calif.; Harold F. Knapp, Sanger Telephone Co. and Louis L. Thomas, Citizens Utilities Co. of Calif.

### *Three Young Members*

ON THE morning of the third day, Richard D. Crowe, retiring president of the association, opened the final session and called upon John H. Evans of the Evans Telephone Co., Patterson, to read two resolutions from the floor honoring Charles F. Mason, chairman of the board of General Telephone Co. of Calif. and Willard Wade, vice president of the California Interstate Telephone Co. upon their retirement from the association's board of directors.

Highlighting the convention with the unexpected, Crowe introduced to the assembly the youngest applicants for membership the association has ever known; John Davis 14, of Berkeley, Tom Voorhees 15 of Berkeley and Preston Thomson 16, of El Cerrito. They were formally voted in as members.

This all began when Thomson wrote a letter of application for all three in which he said, "*I believe us Independents should stick together.*"

Their qualifications: They operate two functioning private telephone companies, one with 15 subscribers, the other with two. They are in the

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midst of two big technological improvements — a changeover from manual to dial telephones is in progress, and a radio link between the two companies is planned.

They are not only the youngest members of the Association, but their two companies are the smallest operating telephone firms that anybody knew about anywhere. The three boys combine the functions of utility executives, switchboard operators and repairmen.

### *MacGougan Elected Pres.*

LYNDON FARWELL, president of the Los Gatos Telephone Co., acting as chairman of the nominating committee, announced that Fred MacGougan, had been elected president of the association to succeed Richard D. Crowe. MacGougan is manager of the telephone division of the California Water & Telephone Co., Monrovia, and has had almost 40 years experience with the telephone industry. He will also remain a director. Other officers elected for the 1956-57 term are: J. Curtis Newman, first vice president; J. P. Maguire, second vice president and Neal C. Hasbrook, secretary-treasurer.

Directors will be: Fred MacGougan, Richard D. Crowe, Dos Palos Telephone Co., Inc.; J. P. Maguire, Kern Mutual Telephone Co.; J. Curtis Newman, Coachella Valley Home Telephone & Telegraph Co., and Donald H. Strahl, Gilroy Telephone Co. Two new directors: Harlan W. Holmwood, General Telephone Co. of Calif., and W. Gilman Snyder, The Western Telephone Co., were elected.

### *Company Relationship*

FOLLOWING the election of directors, Richard E. Hambrook, executive vice president of The Pacific Telephone & Telegraph Co. discussed the relationship of The Pacific Company with the Independent telephone industries.

"We sometimes approach our common objectives with differing points of view," he said. "I am sure, however, that these different points of view, as they are resolved within the industry, strengthens our joint endeavors. We have the machinery, and I am sure, the will to continue solving mutual problems in the public interest. Our responsibility to the people of California demands no less and our business sense underwrites this kind of close cooperation.

"Seeking the common goal of the best possible service for the people of California presents common problems. We all operate within the same framework of regulation; legislation that affects one affects all. The profound growth and change of California presents us all with a challenge."

Speaking of California's future, Hambrook stated: "There are some 13½ million people here today. This figure represents a growth of about 53 percent since 1940. Just since 1950, we have added enough people to populate the city of Chicago. No wonder some of us still have held orders."

"Last year, 800,000 new customers asked the Pacific Telephone Co. in California for main line service," Hambrook continued. "Our toll volume went up 15 percent. And this year we must get and spend about 321 million dollars for construction. The statisticians tell us that we may expect a population of 18 million by 1965 and 25 million by 1975. This means that in 20 years we are going to double our present population. We will add enough people to fill a New York City and two Chicagos."

Continuing to discuss growth, Hambrook revealed, "From 1920 to 1950, net migration accounted for 80 percent of California growth. But cupid, the stork, and the grim reaper are


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*Patents pending in United States and Foreign Countries*
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We Sell DIRECT ONLY to Domestic Customers

FOREIGN Customers write DIRECT or see your Export Agent

MURPHY ENGINEERING LABORATORIES, INC.
4419 TULSA STREET, Phone OVerland 2-4000, HOUSTON 24, TEXAS

changing this trend. Only 52 percent of our predicted population growth will be due to migration. The rest will come from such sources as the war baby crop. When this crop matures, there will be many new homes established, each with a need for telephone service."

"The picture of private industry looks good, too," Hambrook continued. "California ranks fifth among the states in manufacturing employment. As recently as 1947 we ranked only eighth. We have every reason to believe this trend will continue. If it does, we will rank third by 1965."

Highlighting his talk with some future predictions, Hambrook gave warnings to the telephone industry by saying: "We expect to double our total telephones in the next 10 years. The population we serve will probably reach 25,000,000 by 1975. To meet these expected demands for telephone service we must keep ourselves financially healthy. The only way to meet this future challenge is to improve our earnings today."

In conclusion, Hambrook said: "I have talked about California's growth, merchandising, the problem of extended area service, labor and legislative problems, and our ever-present need to improve earnings. There is one final area in which all of these things find expression. The name for this area is a little shopworn. But it still describes something which becomes more important to all of us every day.

"Public Relations. To me this means simply the personality of our business. It shows up in a million different ways all the time. The things that are said about us in the newspapers, the way an installer talks to a housewife, business office contacts, whether or not we get a rate increase we ask for, whether or not a construction truck does a safe, courteous job of driving on the highway, and the things that people say to one another about us.

"Advertising, news releases, open houses, and many other traditional public relations channels are familiar to us all. But they only do a part of the job. Unless our employes understand what we are and where we are headed, and reflect this on the job and off it, we can't be sure we are doing a thorough job of public relations.

"Helping people to achieve this understanding, identifying themselves with the business, is not always easy. It's a test of good management. It takes time and it takes money. Most of all, you have to believe in it yourself. You have to have faith that it will work. You will find no better public relations force than our employes — every employe can be a member of your public relations department . . ."
—*George A. Bridges*

**"How much longer are you going to be mad at the phone company?"**

## coming CONVENTIONS

**MICHIGAN: — Pantlind Hotel, Grand Rapids, Sept. 6-7.**

**TENNESSEE: — Hermitage Hotel, Nashville, Sept. 13-14.**

**ARKANSAS:—Arlington Hotel, Hot Springs, Sept. 17-18.**

**ROCKY MOUNTAIN: — Utah Hotel, Salt Lake City, Utah, Sept. 20-21.**

**NORTH CAROLINA:—Carolina Hotel, Pinehurst, Oct. 4 and 5.**

**USITA: — Conrad Hilton Hotel, Chicago, Oct. 15-16-17.**

**VIRGINIA—W. VA.:—Roanoke Hotel, Roanoke, Va., Nov. 1 and 2.**

**S. CAROLINA: — Clemson House, Clemson, Nov. 5-6.**

**OKLAHOMA: —Huckins Hotel, Oklahoma City, Nov. 7-8.**

**ALA.—MISS.:—Thomas Jefferson Hotel, Birmingham. Nov. 12-13.**

**GEORGIA: — Bonair Hotel, Augusta, Nov. 15-17.**

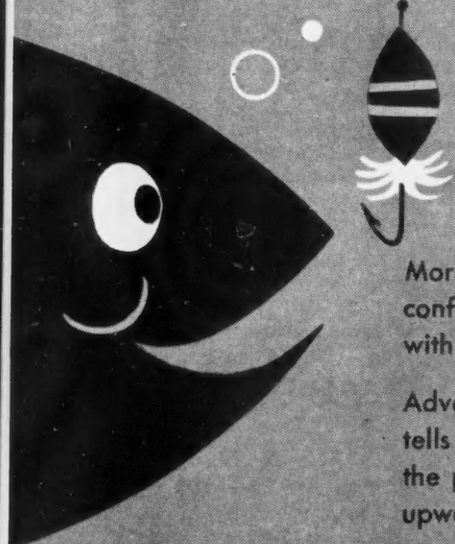
**FLORIDA: — Daytona Plaza Hotel, Daytona Beach, Nov. 19-20.**

**TEXAS: Plaza Hotel, San Antonio, Mar. 11-12, 1957.**

**IOWA: Hotel Fort Des Moines, Des Moines, Apr. 2-3, 1957.**

**WISCONSIN: (Hotel Not Selected), May 15-16, 1957.**

# WHY FISH FOR RESERVATIONS?



More and more vacationers are using Long Distance to make and confirm those all-important holiday reservations, and keep in touch with home and office while away.

Advertising aimed at vacation-minded readers of national magazines tells of the value of Long Distance to travelers. The advertisement across the page will run in full color in August magazines that reach upwards of 50,000,000 people.

It is part of a continuing promotion of Long Distance usage which benefits *all* of America's telephone companies, because it stimulates calls to and from every part of the country.

**Vacation tip:**

# *Make your plans by telephone*

This summer let the telephone help you relax and enjoy a carefree vacation. Wherever you're bound, call ahead for reservations. You'll add peace of mind to every mile of your trip.

Be sure to telephone out-of-town family and friends you plan to visit. That way you know they'll be there.

And while you're away, remember: home and office are as near as the nearest telephone. It's so quick and easy to call. And it costs so little.

**BELL TELEPHONE SYSTEM**

**LONG DISTANCE RATES ARE LOW**

*Here are some examples:*

| | |
|---|---|
| **Washington, D.C., to Mount Pocono, Pa.** | **55¢** |
| **Cleveland to Traverse City, Mich.** | **75¢** |
| **Phoenix to Laguna Beach, Calif.** | **80¢** |
| **New York to Bar Harbor, Maine** | **85¢** |
| **St. Louis to Asheville, N.C.** | **90¢** |

These are the Station-to-Station rates for the first three minutes, after 6 o'clock every night and all day Sunday. They do not include the 10% federal excise tax.

*Call by Number. It's Twice as Fast.*

**MERCHANDISING IDEAS, METHODS, AND POLICIES are discussed at a joint meeting between the Merchandising Committee of United States Independent Telephone Association and officials of the AT&T of New York. The conferees shown above (left to right) were: B. C. AMES, representing Theodore S. Gary; EARLE G. BELLAMY, Knoxville, Ia.; CARL D. BROREIN, JR., Tampa, Fla.; ROBERT P. JUDY, New York; L. D. DENSMORE, Lincoln, Neb.; J. M. SHAW, New York; R. E. JONES, Lincoln, Neb.; LEON F. ROBERTS, Washington, D. C.; W. H. DOHERTY, F. C. SMITH, JOHN J. HANSELMAN (back to camera), and ORLA L. MOODY, all of the American Telephone & Telegraph Co., New York.**

# USITA Merchandising Committee Members Meet With American Tel. & Tel. Officials

AN EXPANDED and more comprehensive merchandising program for the Independent telephone industry is expected to result from the first meeting of the United States Independent Telephone Association's newly organized Merchandising Committee. The meeting was in the form of a conference with Bell System officials, in New York on June 18 at which time members of the Committee were given an interesting and informational briefing by A-T-&-T's top men in the merchandising and commercial fields. USITA's representatives carried away with them several concrete suggestions, which will be passed on in more detail at a later date to all Independent companies, and which are expected to aid our companies materially in planning for future selling activities.

Members of USITA's Committee in attendance were: Colonel L. D. Densmore, Lincoln, Neb., chairman; Earle G. Bellamy, Knoxville, Ia.; Carl D. Brorein, Jr., Tampa, Fla.; R. A. Lumpkin, Mattoon, Ill. Theodore S. Gary was unable to be present and was represented by B. C. Ames. Also present were R. E. Jones, associated with Chairman Densmore; and Leon F. Roberts, Washington, D. C. A-T-&-T officials in attendance were: Robert P. Judy, Orla. L. Moody; John J. Hanselman; W. Cook, vice president in charge of merchandising; F. C. Smith; W. H. Doherty; John M. Shaw; and J. H. Page.

### *AT&T Surveys*

AMONG OTHER THINGS, it was decided to work out a system whereby results of market research and public opinion surveys conducted by the Bell System will be made available through the associated companies to Independent companies.

It was felt that these survey results would be helpful in guiding the Independents in establishing sales policies and in formulating merchandising programs. (It was emphasized, however, that the Bell territory surveys might not accurately reflect marketing possibilities and public opinion in Independent areas, and the Committee is exploring a suggestion that it conduct certain representative surveys of its own through the medium of a sample selection of Independent operating companies.)

General information regarding these studies and all other phases of merchandising activities will be disseminated by the USITA's Member Letters, and companies who desire more detailed and specific information will be able to obtain it by contacting their Bell System connecting company offices.

A-T-&-T's merchandising specialists informed USITA's Committee that, in their book, effective merchandising means "meeting existing wants, creating and satisfying additional desires at prices the customers are able and willing to pay, at a good profit".

Suggested markets with profit possibilities included the following:

- Complete home service:
  - Bedroom, kitchen, nursery
  - Upgrades, second lines
  - Intercom, central ringing
- Hands-free telephoning
- Automatic answering
- Improved public telephone service
- Improved rural telephone service
- Announcement services
  - Weather, time, news
  - Management announcements
- Closed circuit TV.

Certain statistical information was laid before USITA's Committee to assist them in assisting Independent companies to better plan for the fu-

***Please turn to page 82***

POWERS *American* PRESENTS . . .

an aerial unit designed specifically for operations requiring only one workman

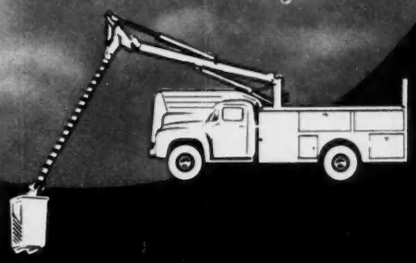
THE COMPLETELY NEW

Series AB-1-41

# "Sky-Master"®

HYDRAULIC AERIAL BEAM

## FOR WORKING IN HARD-TO-REACH PLACES WITH GROUND-LEVEL EASE

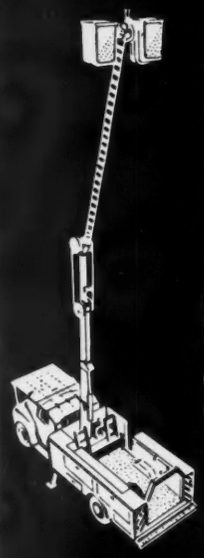


*Over • under • around obstacles* . . . Sky-Master quickly reaches out-of-the-way work — and provides on-the-ground safety and comfort for the workman.

Independently-operated steel beams are moved by double-acting hydraulic cylinders, through a unique system of linkage which greatly increases operating range. There are no chains, sprockets, or other secondary means of actuation. Supporting mast can be rotated *continuously* in either direction.

Work basket and insulated outer beam protects workman from 60,000 volts. Basket is automatically locked in position in event of damage to hydraulic lines.

The AB-1-41 . . . having ground-to-basket floor height of 41' . . . can be equipped for your particular job, and installed on a Powers-American Body that fits your needs.



*The heavy-duty Series AB-37 and AB-43 Sky-Master carries two men up, out, over, or down. Available in 37' and 43' ground-to-basket heights.*

Descriptive literature on Series AB-1 and Series AB Sky-Master — with price information — will be sent on request.

## McCABE-POWERS AUTO BODY COMPANY

5900 NO. BROADWAY • ST. LOUIS 15, MO. • 625 CEDAR ST. • BERKELEY 10, CALIF.

# construction and maintenance DIGEST

- Ringer wins for you
- What's in your arms
- Good cable "adds up"
- Direct burial saves costs
- Wire saves poles
- Protect sub-stations
- Insure your power
- Coiled in color
- It's a howl
- 25-year battery

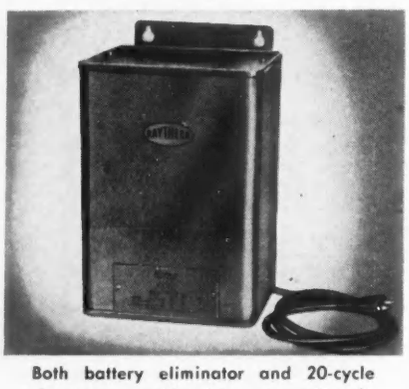
Published every month to help you get the most out of your materials and supplies dollar

*by C. J. Reynolds, Stromberg-Carlson Company*

Two dividends are yours when you order supplies from Stromberg-Carlson. First, you get the protection of a double guarantee—ours and the maker's. This assures you of getting the finest products, backed by our 62-year reputation. Second, your support is used to further the art of telephony. We're knee-deep in this industry as a full-time job, not a side line, and your supply business plays a big part and helps us continue our research for new and better telephone equipment.

### How to get humless DC *and* 20-cycle ringing in one unit

In a case that's just barely big enough to carry a husky lineman's lunch, you can get plenty of power.



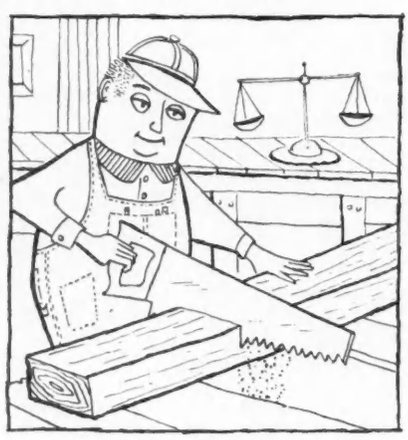
Both battery eliminator and 20-cycle ringer are combined in one small unit.

We're talking about the Raytheon RectiRingeR, which measures only 7⅜" x 12¾" x 6". Here, in one compact little unit, you get **both** a battery eliminator and 20-cycle ringer.

This unit includes the RectiFilteR, the DC power source that has been proven by years of service for Independent telephone companies. It supplies humless, regulated DC power, with 20-cycle ringing power.

Economical, silent in operation, the RectiRingeR is easy to install. And it has a special relay which **instantly** brings in "stand-by" power in the event of an AC failure.

### $1 worth of cross-arms?

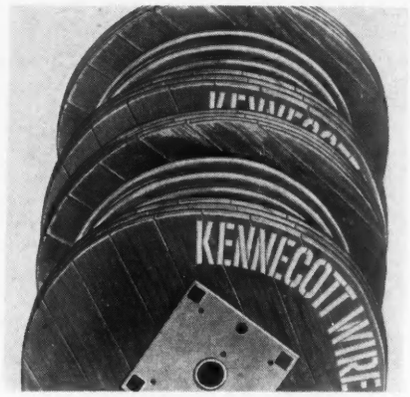


When you spend a dollar on plant investment you want a dollar's worth of material and service.

That's what you get with cross-arms from Stromberg-Carlson. At American Cross-Arms, Inc., they make just one thing — cross-arms. Standards and special arms, Douglas fir and pine, big and small orders.

Their experience and Stromberg-Carlson's excellent service come with each order, no matter what its size. You get fast delivery from strategically located stocks.

### Copper Wire + Paper Insulating Tape + Lead-Antimony Sheath + Accuracy in every detail adds up to—Kennecott Telephone Cable

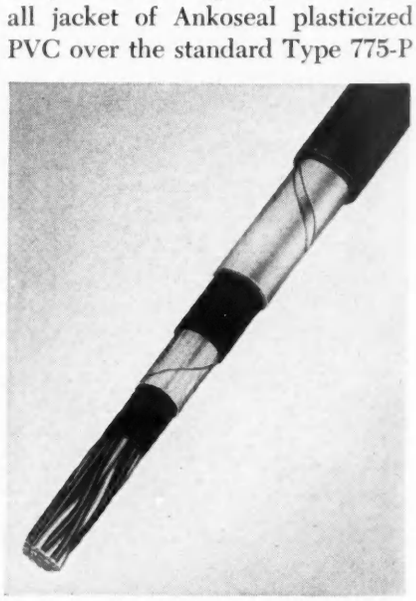



Accuracy in every manufacturing process is the reason Kennecott Telephone Cable is of high quality. Careful manufacture—attention to the minutest details—result in dependable, long-lasting cable performance.

### Direct burial cables save cost of underground ducts

Ansonia manufactures cables for direct, ductless burial, thoroughly armored to provide the mechanical protection you need for dependable telephone service.

Ankoseal Type 775-AP Direct Burial Cables offer you the added protection of two .013" aluminum alloy flat armor tapes, plus an overall jacket of Ankoseal plasticized PVC over the standard Type 775-P



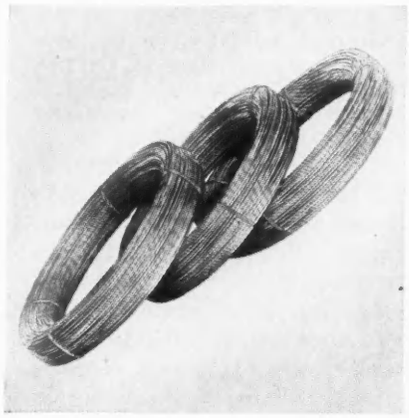
Layers of protection make Ankoseal Direct Burial Cable ideal for low-cost underground placement of outside cable plant.

Cable. The armor tapes give additional shielding.

With its flexibility and light weight, Ankoseal Direct Burial Cable permits quick placement in trenches or by means of cable plows with small crews.

### Save 10-15 poles per mile

A net saving of 10 to 15 or more pole structures per mile is possible where **Crapo** High-Tensile Telephone Line Wire is used in long-span construction. Fewer pole structures mean substantial savings in time, labor and material, and in maintenance.



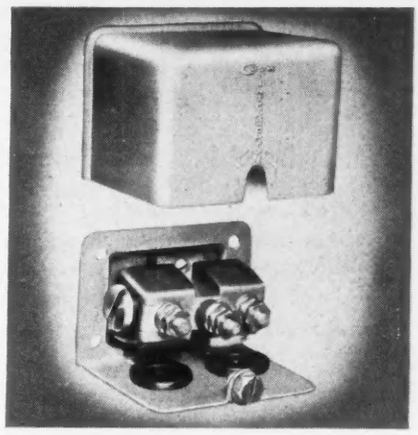
**Crapo HTL-135** makes possible spans of 350 feet in heavy, 450 feet in medium, and 500 feet in light loading areas. Its practical economy should be considered for new extensions and where old lines are to be replaced.

**Crapo HTL-85** (No. 12 B. W. G.) permits spans of 225 feet in heavy, 325 feet in medium, and 375 feet in light loading districts; provides stronger spans on existing pole structures. Both wires possess superior telephonic transmission qualities.

### The new Cook "Interceptor"

Lower Maintenance Costs—Sounds good, and it is! It's the new "Interceptor," a fuseless sub-station protector made by Cook Electric Company.

The "Interceptor" contains a Bakelite unit having heavy Everdur bussed circuits and ground studs, insert-moulded. It is compact and employs the protection characteristics of the Mini-Gap carbon-to-carbon arrester. There are two

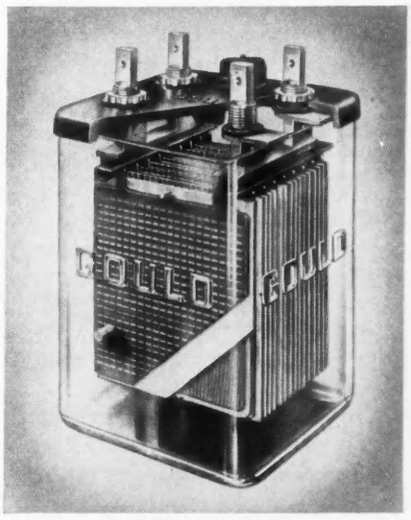


"Interceptor" fuseless sub-station protector

Mini-Gaps used and they will pass, simultaneously, a current of 30 amperes for 15 minutes without destruction in accordance with Underwriters' requirements.

### Insure your power supply

Because Planté batteries practically last forever...providing stand-by power that never fails...they're the best operating insurance you




A sure, dependable supply of power when you need it. That, briefly, is the story of this Gould Planté battery.

can buy. In switchgear, signal and alarm systems, or emergency light and power applications, these lead batteries have rolled up amazing performance records . . . are famous for their ability to deliver a powerful surge or a steady flow of current the instant it's needed.

### Retractile cords now in black or color

There's extra revenue in Koiled Kords* retractile cords—the spring-like telephone cords that curl up neatly instead of dangling noose-like from the telephone.

Neoprene jacketed, they fit all types and makes of telephones, and

Available in black or color.

last indefinitely under severe service conditions. Extend to about 5 times their retracted length and return to their original neat coil when released.

Tinsel conductors provide maximum flexibility.

*Koiled Kords is a trademark of Koiled Kords, Inc.

### Puts up a howl, gets receivers back on the hook

Compact and easy to handle, this little fellow has the voice to make himself heard!

You can keep those party lines clear with the device shown here. It's the Lorain Howler, a signal tone generator that simply plugs into the line at the test desk, and gives a distinctive howling sound to attract the subscriber's attention. Starting at low volume and high frequency, this signal changes to a loud, low tone, passing through a range that is most suitable for the human ear and your equipment to receive.

Because of its distinctive and penetrating quality, the Lorain Howler's tone can be sent out at a much lower voltage than other signals used for this purpose, reducing the possibility of damage to the receiver or cross talk in the cables.

*(Continued on Page 82)*

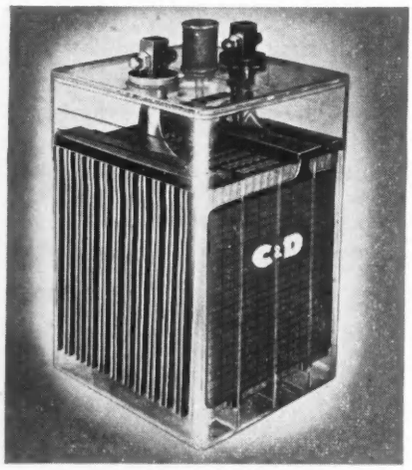
*(Continued from Page 81)*

## construction and maintenance digest

**Battery will still have its pep when 1980 rolls around**

It will last 25 years—in full float service! That's the life expectancy of C & D's PlastiCal (lead-calcium grids) telephone battery.

You get this extra-long, trouble-free operation because C & D Batteries, Inc. use an exclusive suspended and supported plate construction.




In full float service, this telephone battery stays on the job a quarter of a century.

Illustrated here is a typical C & D telephone battery with a 660 A.H. capacity. When ordering this 25-year battery, specify PCE-660.

When you find that a 14-year expectancy meets your needs, you can get dependable operation from a C & D PlastiCell (high-tensile lead alloy grids) battery. For a PlastiCell with capacity of 660 A.H., specify CE-23.

You can order either of these C & D telephone batteries, plus other capacities, from your Stromberg-Carlson representative. Ask him about extra-long-life power supply with C & D Batteries.

*Distributed by*

**STROMBERG-CARLSON**

A DIVISION OF GENERAL DYNAMICS CORPORATION

Sales Offices: Atlanta 3, Chicago 6, Kansas City 8, Rochester 3, San Francisco 3.

ture. The Bell officials said that in 1941, 37.1% of the homes in Bell territory had telephone service; in 1956, the percentage was 76.5, and it is estimated that by 1960 the figure will have grown to 85%. Of the System's residence subscribers, 84% of the homes have one telephone, and 16% have two or more telephones.

Considerable emphasis is given to the potential profit in additional telephone sales. In Baltimore, Maryland, 80% of all new homes now are being pre-wired for telephone service. After the homes are occupied a special sales force follows through. As a result, these salesmen currently are selling 2.17 telephone instruments per home.

***Extension Telephones***

THE ENORMOUS market for extensions (now designated by some companies as "additional telephones") is demonstrated by the fact that there are 70 million bedrooms in Bell System homes, and surveys have shown that those who desire additional telephones want them placed as follows:

In the bedroom — 47%
In the kitchen — 18%
In the basement — 15%

When it comes to colored telephones the housewives' preferences are:

1. Rose pink — 19%
2. Aqua blue — 16%
3. White — 14%
4. Ivory — 10%

The three basic steps taken by merchandisers in selling are: 1) test product and market; 2) assure supply; 3) promote and sell.

In planning future merchandising programs, consideration is given to the population growth and the growth of new homes built annually all over the country.

Provisions of more individual line facilities, improved public telephone service to stimulate the usage of public telephones, and directory advertising selling are regarded as having a great potential for increased revenue.

Said one spokesman: "We are convinced that all companies must gear their expansion and investment programs to provide more private line service. We know that if we don't provide the type of service the customer wants he is going to get it somewhere else. Many large concerns have demonstrated this recently by putting in their own microwave systems". Another official said: "We are envisioning the day, and that isn't too far away, when we will do more package selling. For example, suppose a customer has one telephone in his house for $5 a month. We will say to him: 'We will provide you with three telephones in your home, an intercommunicating system, and perhaps even doorbell answering service, all for the price of $10.' In other words, we will offer him a lot more service for only twice the cost."

The meeting closed on a mutually optimistic note, and with Chairman Densmore expressing his appreciation and that of his associates for the time and effort spent by the Bell people in better preparing USITA's merchandising representatives for the job that lies ahead.

**R. A. LUMPKIN, president of the Illinois Consolidated Telephone Co., Mattoon, Ill., and a member of USITA's Merchandising Committee, strikes a thoughtful pose during conference.**

## Radio Signals Lick Nature In Canadian Trans-Horizon "Scatter" System

A LONG-DISTANCE communication system, said to be capable of withstanding all the interference that nature can throw at it, was demonstrated to Canadian Government officials at Ottawa last month.

Trans-horizon communication, called "Scatter" for short, is impervious

to the Aurora Borealis and other hazards in far-north communication, according to Collins Radio of Canada, sponsors of the demonstration.

Like Longfellow, who shot an arrow into the air, Collins' engineers shot a whole quiver of signals into the sky above Ottawa. There they scattered, but enough signal strength bounced back to earth to form a reliable communications link with Montreal.

Collins Radio, at its Toronto plant opened in 1955, has established the world's first full-scale production line for scatter propagation equipment.

Production currently is bound almost entirely for the Distant Early Warning line, being built by the U. S. along the 70th parallel in Canada's far north. Collins of Canada is a wholly owned subsidiary of Collins Radio Co., Cedar Rapids, Ia.

Although defense demands have been the spur to rapid development and production of the new system, engineers at the Toronto plant are planning for a heavy demand from industry. Scatter communications, they say, will solve the problem of transmitting information over difficult terrain and in adverse weather.

Unlike microwave signals, which have to be boosted along at intervals of approximately 25 miles, scatter transmission takes giant strides of 125 to 175 miles each. That's because scatter is not bound by the Horizon, as is microwave. Scatter sends its signals up into the sky, where they are reflected back to earth 125-175 miles away.

How high is up? It depends upon which of the two scatter system are being used.

The first system employs the troposphere — that part of the atmosphere extending upwards for six or seven miles from the earth's surface. This is the part of the atmosphere in which weather disturbances occur.

The troposphere can be used as the "reflector" of the signals over distances ranging from 50 to 300 miles. The communications system being built for the DEW line, and the one set up for demonstration purposes to link Ottawa and Montreal is tropospheric.

The other scatter system uses the ionosphere, a region made up of electrified particles, with the bottom layer about 70 miles above the earth's surface. The ionosphere will reflect scatter signals over a distance of from 600 to 1,200 miles — but only if huge antennas and vast power are used.

Collins Radio's engineers predict a major role for tropospheric scatter in the near future of Canadian communication, largely because it reduces many of the problems encountered in other forms of communication in remote areas.

One possible commercial application, expected to become a reality soon, is in the operation of oil pipelines. Scatter transmitters, at intervals of approximately 150 miles, will send all data on volumes, pressure and like, to a central control station.

Use of scatter for DEW line communication points the way to its future use in long distance telephone hook-ups, both as a public utility and as private systems for mining companies operating in remote northern regions.

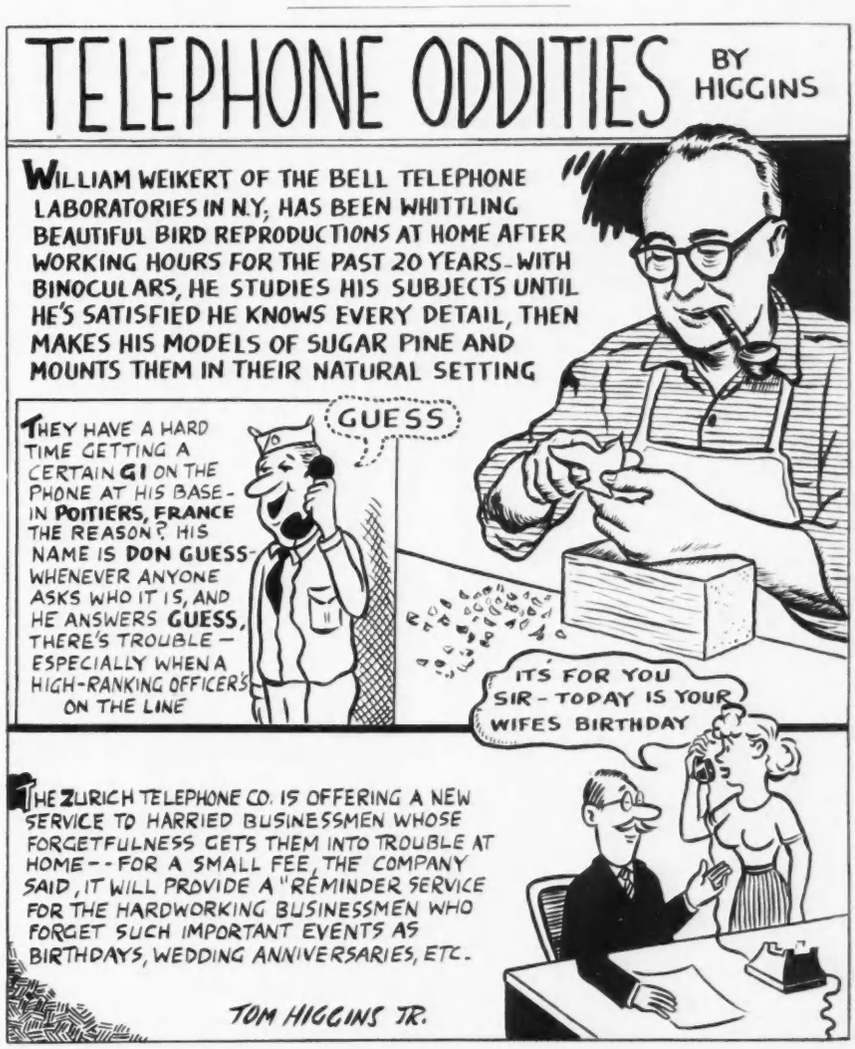
Scatter may also bring the era of intercontinental television much closer. Today, the earth's curvature limits the distance which TV signals may hop by microwave to about 25 or 30 miles. Relay posts are needed to send the microwaves from horizon to horizon.

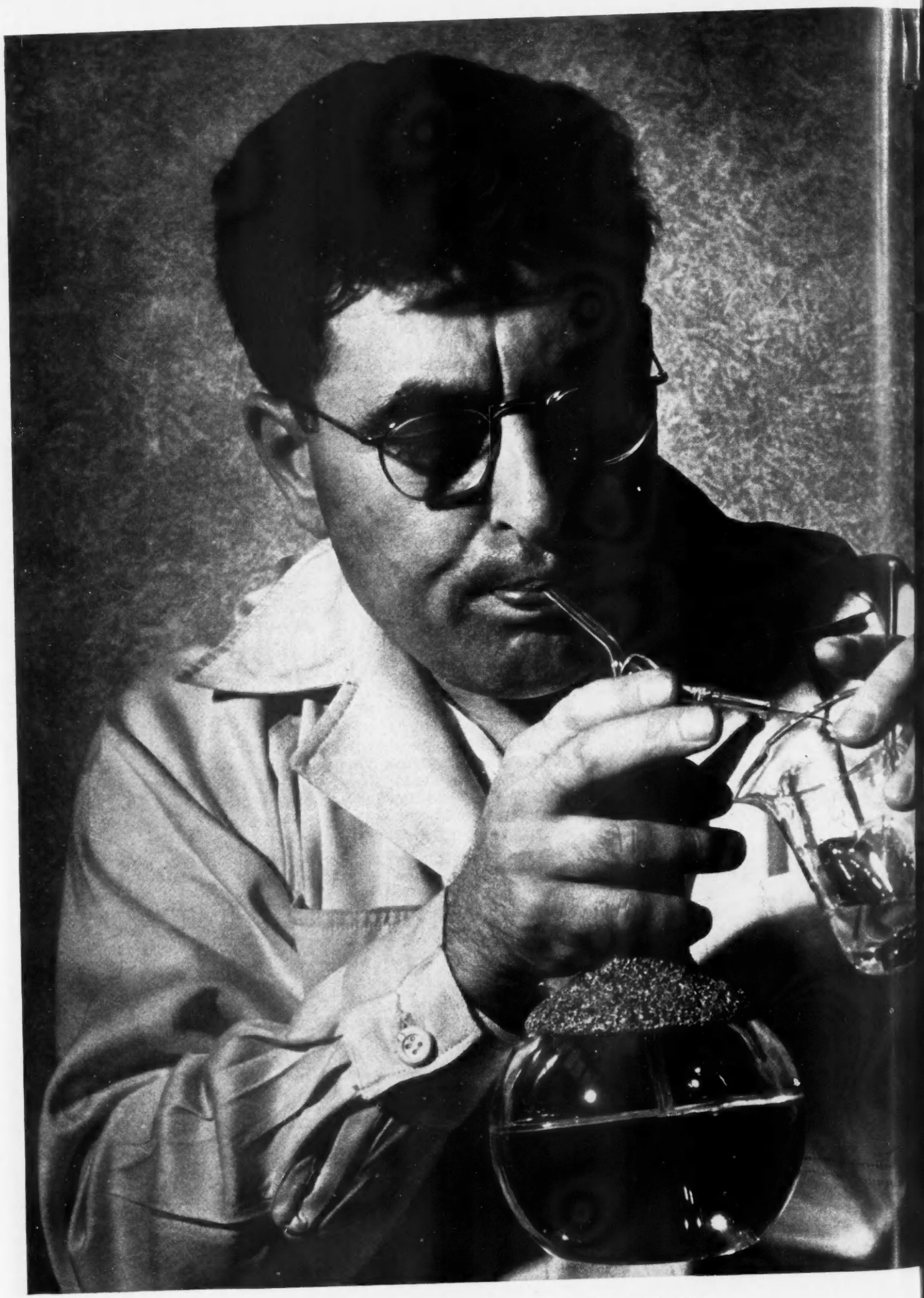
It's now possible — in theory at least to send a TV signal as much as 300 miles at a single stretch between two scatter posts, using the tropospheric system. (The ionospheric system is not sensitive enough to carry TV pictures.) A scatter system is now being established to carry TV programs between Florida and Cuba.

Expanding rapidly to meet the DEW line's demands, Collins Radio of Canada has had to add to its Toronto production facilities twice within less than a year.

Soon after the plant opened in 1955 with 35,000 square feet of floor space, a 20,000 square foot addition was built. This was later augmented by 25,000 square feet of work space leased in a neighboring plant.

More new construction may be undertaken soon, to house the company's radily growing staff. From 15 employes last July, the staff has risen to 275 today. — *Phil Glanzer.*


TELEPHONE ODDITIES
BY HIGGINS
WILLIAM WEIKERT OF THE BELL TELEPHONE LABORATORIES IN N.Y, HAS BEEN WHITTLING BEAUTIFUL BIRD REPRODUCTIONS AT HOME AFTER WORKING HOURS FOR THE PAST 20 YEARS-WITH BINOCULARS, HE STUDIES HIS SUBJECTS UNTIL HE'S SATISFIED HE KNOWS EVERY DETAIL, THEN MAKES HIS MODELS OF SUGAR PINE AND MOUNTS THEM IN THEIR NATURAL SETTING
THEY HAVE A HARD TIME GETTING A CERTAIN GI ON THE PHONE AT HIS BASE-IN POITIERS, FRANCE THE REASON? HIS NAME IS DON GUESS-WHENEVER ANYONE ASKS WHO IT IS, AND HE ANSWERS GUESS, THERE'S TROUBLE — ESPECIALLY WHEN A HIGH-RANKING OFFICER'S ON THE LINE
GUESS
IT'S FOR YOU SIR - TODAY IS YOUR WIFES BIRTHDAY
THE ZURICH TELEPHONE CO. IS OFFERING A NEW SERVICE TO HARRIED BUSINESSMEN WHOSE FORGETFULNESS GETS THEM INTO TROUBLE AT HOME - - FOR A SMALL FEE, THE COMPANY SAID, IT WILL PROVIDE A "REMINDER SERVICE FOR THE HARDWORKING BUSINESSMEN WHO FORGET SUCH IMPORTANT EVENTS AS BIRTHDAYS, WEDDING ANNIVERSARIES, ETC.
TOM HIGGINS JR.



PORTRAIT OF AN INDUSTRY

# The Chemist

He deals with the nature of materials and their composition. Analyzing, checking, seeing that formulas and specifications are rigidly adhered to, is his important contribution to the making of dependable telephone equipment for the Bell telephone companies.

Like the lineman and the operator, the chemist lends his special skills and talents to help achieve the common goal of the telephone industry . . . providing better telephone service for America.

Western Electric

MANUFACTURING AND SUPPLY UNIT OF THE BELL SYSTEM

# SUPPLIERS' NEWS BRIEFS

## Koiled Kords Announces Election of New Officers

JOHN BROWN COOK, president of Koiled Kords, Inc., Hamden, Conn., last month announced the election of Colonel Edgar L. Love, U.S. A.F. (Ret.) as vice president in charges of sales. At the same time Mr. Cook reported the election of James Cooper, New Haven attorney, secretary; Mrs. Rachel Duffy, New Haven, as treasurer and assistant secretary; and Robert A. Shields, New Haven, assistant treasurer.

Colonel Love has been sales manager of Koiled Kords, Inc., since the company was purchased by its present owners and established in Hamden in 1947. In his new capacity he will have charge of all sales activities of Koiled Kords, Inc. and will assume other executive responsibilities. In addition Colonel Love will direct promotion and sales of a new signal transmitting system that Koiled Kords is distributing to telephone companies. Koiled Kords, Inc., sells retractile electrical cords now widely used on telephones and in industry.

Colonel Love, a graduate of West Point, rejoined the air force in World War II and had a position of considerable responsibility at the big Dodge plant in Chicago. Outside of his air force activities, he has had wide experience in the telephone industry having been associated with both the Western Electric Co. and International Telephone & Telegraph Corp. Colonel Love makes his home in Hamden where he is active in civic affairs.

COL. EDGAR L. LOVE

Mr. Cooper, a New Haven attorney is an officer and director of several well known local corporations.

Mrs. Rachel Duffy, in addition to her new duties as treasurer and assistant secretary of Koiled Kords, Inc., is also treasurer of Whitney Blake Co. New Haven.

Mr. Shields, the new assistant treasurer is controller of Whitney Blake Co. in charge of accounting, cost and payroll departments. He served with the army engineers both at home and overseas and has a wide background in accounting.

## North's Dallas Warehouse Moves to New Location

R. B. WISEMAN, North Electric's Telephone Division manager, has announced expansion of the North warehouse in Dallas, Texas. The entire personnel and inventory of North's Texas facility has moved from 149 Payne Street to new and larger quarters at 1725 Levee Street.

The newly enlarged North outlet will serve as North's Sales Headquarters and Line Supply Distribution Center for Texas, Arizona, Arkansas, Oklahoma, Louisiana and N. Mexico.

K. J. Paul is regional manager for

North Electric's Dallas Texas Warehouse.

North in this area and the sales engineers are E. W. Cross, C. C. Browne and M. C. Meadows. The warehouse manager is John Boyd.

North's new Dallas warehouse retains the designation of North Warehouse No. 4—the telephone number remains the same—Prospect 2826.

The new North warehouse was designed and built by Williams & Wagner Construction Co., Dallas, Texas, and is conveniently served by a rail spur of the Texas & Pacific Railroad and the Cotton Belt Railroad.

## Service Life of Exide-Tytex Battery Extended

NEW GRID alloys and other product improvements have been introduced in a line of batteries for stationary power applications by Exide Industrial Division of The Electric Storage Battery Company, Philadelphia.

They are expected to extend service life up to 10 per cent and reduce maintenance requirements.

The improvements have been made in the Exide-Tytex flat-plate battery line intended specifically for uses in the electric utility field, signaling, telephone service, emergency lighting and other industrial operations.

**WILLIAM H. KRAPF has been appointed a sales representative for C & D Batteries in the Pittsburgh area. A member of the Material Handling Society, Krapf comes to C & D with some 10 years' experience as a field engineer and sales representative with Edison storage batteries. Earlier, Krapf was associated with Westinghouse Electric Corp.**

Retaining basic features proved successful in years of service, the Exide-Tytex line for the first time includes Silvium positive grids. Silvium, an Exide patented alloy of lead, silver and other metals, has brought new service-life standards to the storage battery industry by its superior ability to resist corrosion and withstand overcharging.

Transparent containers, with covers effectively sealed to prevent leakage and keep out dirt, are made of strong, lightweight polystyrene instead of glass. Also heat-resistant, this plastic material already has proved itself in stationary battery applications. The first plastic jar battery to be approved by Underwriters' Laboratories, Inc., for emergency lighting-unit equipment, for example, was the 3-COE-7 Exide-Tytex battery with polystyrene container.

The improved Exide-Tytex design provides greater space between the plates and the top and the bottom of the jar, substantially increasing electrolyte volume. In normal float service, in which a battery always is connected to a charging line, it is necessary to add water only about once a year to maintain electrolyte level above the plates.

The greater volume of electrolyte

**The above photograph was taken during the recent Sales Managers' Conference of the General Telephone Directory Co. which was held at the Orrington Hotel in Evanston, Ill. on May 11 through May 15. This was the first general Sales Conference since the integration of the General Telephone Directory Co. and Loomis Advertising Co.**

**Sanding *left to right*—Marshall Smith, directory sales manager, Durham, N. C., Warren J. Murphy, secretary and treasurer, Des Plaines, Ill., George R. Allen, Jr., administrative assistant, Des Plaines, Ill., Edward T. Jordan, directory sales manager, Long Beach, Calif., L. A. Buckland, directory sales manager, Madison, Wis., Dean R. Porter, eastern publishing manager, Des Plaines, Ill.; Vinton S. Giles, manager, Atlas Advertising Co., Des Plaines, Ill.; Wesley H. Loomis III, president, Des Plaines, Ill.; Frank Davies, chairman of the board, Des Plaines, Ill.; Roland T. Beard, vice president and eastern sales manager, Ft. Wayne, Ind.; J. Paul Rossiter, directory sales manager, Lexington, Ky.; Jack T. Ward, directory sales manager, Spokane, Wash., Leland J. Mast, director of sales research and development, Des Plaines, Ill.; David B. Simpson, directory sales manager, Springfield, Ill.**

**Seated *left to right*:—Harry T. Stevens, general sales manager of Dominion Directory Company Limited, Vancouver, Canada,; William Glenn, directory sales manager, Columbia Mo., Warren A. Rolph, vice president and western sales manager, Des Plaines, Ill.; Owen D. Stayner, directory sales manager, Erie, Pa.; O. R. Stigall, directory sales manager, Ft. Wayne, Ind.; Don F. Briggs, directory sales manager, San Angelo, Tex.; John D. O'Neil, controller, Des Plaines, Ill.; O. D. Swanson, publishing manager, Des Plaines, Ill.**

# Stewart

## TEST EQUIPMENT

**Locates Line Trouble FAST**

**1000 Cycle TRANSISTOR OSCILLATOR**

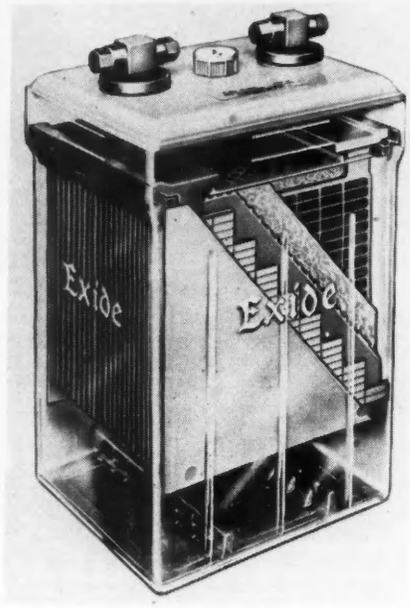
MODEL J

**A Stable power source, for locating trouble in carrier systems and audio equipment.**

Self contained mercury battery with operating life over 700 hours.

**Pocket size, 2¼" x 3" x 4", Wt. 10.3 Oz.**

**STEWART BROTHERS**
Division of Instrument Laboratories
**Chicago 10, Illinois**


**Cutaway view of the improved Exide-Tytex battery for stationary power applications. Shown front to back are negative plate, microporous separator, Vitrex retainer and Silvium alloy positive grid. Note special insulating channels molded into the polystyrene jar to suspend the elements.**

increases the high discharge capacity of the cell, providing an extra reserve of power when needed.

In addition to the wide application in float services, the improved Exide-Tytex battery is well adapted to cycle services. The enlarged reservoir at the bottom of the jar provides ample sediment space for even the most severe cycle applications.

In larger cells of the line, elements are hung on special insulating channels molded into the jar. Elements of smaller cells are cover suspended and positioned and held in place at the bottom by plastic rods and rubber washers.

Highly resistant to chemical and electrical action within the cell, microporous separators and Vitrex retainers insulate the plates. They permit free passage of electrolyte to assure delivery of high rates of current. The retainers hold the active material firmly in contact with the grids, assuring long, trouble-free operations.

Exide-Tytex batteries are available in appropriate sizes for applications in all stationary power fields, rated at from 10 to 1064 ampere-hour capacities.

Further information may be obtained by writing to Department TE&M, Exide Industrial Division, The Electric Storage Battery Co., Box 8109, Philadelphia 1, Pa.


**MARKWELL TELEPHONE TACKER**

**SAVE OVER 50%**
**LABOR & MATERIALS**

**MARKWELL FREE SERVICE**

Factory Service and Over-haul at No Charge and Returned Prepaid When Staples Purchased From Markwell

**ONLY $11.95**

**"HOLDS WIRE SAFE AND SECURE"**

For "JK" Wirt .....Use 63B 5/16" Staples
up to 11 Strand Cable Use L3M 7/16" Staples
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**OTHER USES — Stapling Drop Wire, Metal Numerals, Signs, Screens, Building Repairs and Maintenance, Etc.**

| SIZE | | 8 per pkg. | 15 per pkg. | 30 per pkg. |
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| L3B 5/16" | Leg | $2.80 | $2.60 | $2.40 |
| L3M 7/16" | Leg | 3.05 | 2.85 | 2.60 |
| L3D 9/16" | Leg | 3.30 | 3.15 | 2.95 |

**STAPLES PER PKG. — 5000 . . . Sizes Can Be Assorted For Quantity Price . . . Discounts In Larger Quantities.**

**MARKWELL MFG. CO., INC.**
Established 1919
Industrial Products Div.—Dept. 77
200 Hudson St. New York 13, N. Y.

**KOILED KORDS*** retractile cords give better service to subscribers

and are more economical because they last longer

© 1956
**Koiled Kords**
INCORPORATED
BOX K, NEW HAVEN 14, CONN.
Manufactured by Whitney Blake Co.
*KOILED KORDS IS A TRADE MARK OF KOILED KORDS, INC.

**NATCO**
**CLAY CONDUIT**

The proved and standard protection for Underground Telephone Cables. Highest quality and full line of shapes.

**NATCO CORPORATION**
327 Fifth Avenue, Pittsburgh 22, Pa.

## Sequoia Starts Cable Delivery From New Plant

THE SEQUOIA PROCESS CORP., Redwood City, Calif. announced this month that it has started the marketing of telephone cable from the West's first "all-plastice" cable manufacturing plant.

According to Sequoia representatives, the company will concentrate initially on supplying telephone companies located in the 11 western states. Sales will be made to jobbers supplying the more than 300 independent companies located within the area, as well as to the Bell System. Sequoia's initial shipment of cable has already gone out to the Pacific Telephone & Telegraph Co., for anticipated use in the San Francisco Bay area.

Company president Paul M. Cook stated the move represents a logical extension of Sequoia's more than five years' experience in manufacturing precision plastic-insulated products for the electronics, avionics and guided missile industries, as well as the company's basic desire to increase the diversification of its products.

Completed this spring, Sequoia's new Redwood City plant will be the only plant west of North Carolina specializing in quantity production of modern, plastic-insulated telephone cable.

To supplement production at the Redwood City plant, plans are now also underway for the construction of a second Sequoia telephone cable facility in Kansas City, Mo., which will supply the midwest market. The Kansas City plant will be in operation early in 1957.

The new Redwood City plant consists of a one-story modern building located in the same area as the company's electronic wire and cable facilities. Included in the new factory are high-speed extruders and twinners equipped with their own spark testing units, as well as new cabling machines especially designed for Sequoia. A continuous process inspection system enables the company to guarantee every length of cable that leaves the plant.

In order to meet increased orders, multi-shift production has been instituted and additional cabling facilities are currently being installed.

The product itself incorporates many of the latest improvements in plastic telephone cable, including the

It's not surprising that in every field test the Chance 8-Way Expanding Anchor holds more than its rated load because its design just makes common sense. *Eight* blades expand to form a pyramid shaped square —there is no wasted space between blades. The load is distributed *evenly*—all around the hole. It just seems logical that it should hold more, and it does. That's why it's on so many company standards. Your Chance Anchor Distributor can supply you from stock. *Specify Chance for Service!*

"ANCHORING" is the most complete guide to anchoring and guying ever developed. Shows how to choose the right anchor for every job—and how to install it *right*.

CA56-1A

A·B·CHANCE CO·
CENTRALIA, MISSOURI

# toll calls
# TIMED TO THE SECOND
## *Automatically*

**This is the ultimate in modern, dependable and accurate computing of all toll calls TIMED TO THE SECOND. And what's more it's all done *automatically*—no need for operators to do it manually.**

**Just a flick of a lever, and Calculagraph computes, prints and records ELAPSED time of toll calls, thus eliminating human errors and allowing every operator to handle more calls—and more calls mean more dollars to you.**

**For time-saving operation, for dependable accuracy, for greater toll-call volume, install Calculagraphs on your switchboard. Investigate this model 33 shown here (others available according to need) and see for yourself what CALCULAGRAPH can do for you.**
***Don't delay, write today*** **for catalog to Dept. TM**

231

Photograph courtesy Lincoln (Neb.) Telephone and Telegraph Co. and Automatic Electric Sales Corp.

# CALCULAGRAPH *Company*

HARRISON, N.J.

THE STANDARD OF ACCURACY SINCE 1892


use of virgin polyethylene, light and heat stabilized, for conductor insulation and virgin polyethylene with special carbon black content for outer jacketing. Specially selected tapes are used for interior core wraps and shielding.

Sequoia is now also making plans to draw its own copper for conductors as a means of insuring the highest quality of temper and finish. In addition, the company's research and development staff is continuously experimenting for new products and improvements in construction.

Initially, Sequoia's telephone cable will be made in sizes from six to 202 pair; but later, cables of up to 404 pair will be produced. All cables will exceed REA PE11 aerial and duct cable specifications.

In addition to making telephone cable, the Sequoia Process Corporation also manufactures a wide line of precision electronic wire and cable, as well as HYRAD, a newly-developed irradiated plastic insulating material.

### New Bulletin Describes Ultrasonic Systems

THE BENEFITS which may be derived from ultrasonic techniques in cleaning and degreasing, electroplating, drilling and grinding operations are reported in new Bulletin MW-103 published by Acoustica Associates, Inc., Glenwood Landing, (Dept. TE&M) L. I., N. Y.

Entitled, "Ultrasonic Barrier Broken by Low Cost Power Supply," the 4-page, 2-color bulletin also describes various ultrasonic power supplies, transducers, and systems offered by Acoustica.

### Buckeye Named Supplier of "Mult-A-Frame"

BUCKEYE TELEPHONE & SUPPLY CO., 1250 Kinnear Rd., Columbus, Ohio, has been appointed suppliers of MULT-A-FRAME steel channel framing material to the telephone industry, according to an announcement by Mult-A-Frame Division of Ainsworth Mfg. Corp., Detroit, Mich.

Often called the product of "1000 and one" uses, MULT-A-FRAME has received enthusiastic endorsement of many industrial, architectural, communications, electrical and construction firms since its introduction in 1952. It provides the first and only fully-locking all-purpose framing material that gives skyscraper strength

with less bulk and weight. Framings for cable vaults, installation supports, warehouse racks, pallets, scaffolding and partitions are but a few of the applications for the telephone industry.

According to the manufacturer, MULT-A-FRAME is safe, strong, versatile and can be used to hang, frame or support virtually anything. It is easily and quickly assembled, dismantled and reassembled for reuse. Some users report as much as 40 percent savings in labor in comparing MULT-A-FRAME with similar methods of framing.

Inquiries for additional information may be directed to Buckeye Telephone & Supply Company, 1250 Kinnear Road, (Dept. TE&M), Columbus 21, Ohio.

## Stromberg-Carlson Names Microwave Specialists

EARL G. BROWELL, Murt A. Shea, Joseph O. Fordham and Eliott H. Otterbacher have completed a special training program as Stromberg-Carlson Carrier/Microwave Specialists under the direction of Marion C. Royalty, chief sales engineer of that department, and have now located in their respective Stromberg-Carlson branch offices.

EARL G. BROWELL

Mr. Browell will make his headquarters at the Kansas City office, serving as carrier/microwave consultant in the states of Texas, Louisiana, New Mexico, Arkansas, Oklahoma, Missouri, Kansas, Nebraska, Colorado and Wyoming. He formerly was telephone sales representative in western Texas and New Mexico.

M. A. SHEA

Mr. Shea will use the Chicago office as headquarters for serving North and South Dakota, Minnesota, Wisconsin, Iowa, Illinois, Indiana, Michigan, Kentucky and western Tennessee. From 1951 until he joined Stromberg-Carlson in October, 1955, he was an engineer for the firm of Carl C. Crane Company, Inc., Madison, Wis.

Mr. Fordham will serve the West Coast area, with headquarters in Stromberg-Carlson's San Francisco office. His territory will include the states of California, Nevada, Utah, Arizona, Washington, Oregon, Idaho and Montana, and the Territory of Alaska. He joined Stromberg-Carlson early this year, after having served for approximately three years as plant superintendent of the Elyria (Ohio) Telephone Co., Elyria, Ohio.

Mr. Otterbacher will work out of

J. O. FORDHAM


Suttle Ships Them Fast Out of Stock

**When something happens to switchboard power, immediate replacement is necessary. Like hundreds of other critical items, such apparatus is in stock at Suttle for just such emergencies.**

**Sub-Cycle**

The most commonly accepted proper converter for ringing current in Magneto exchanges, or PBX set-ups. No moving parts — highly dependable — economical on current. Telephone 782 at Lawrenceville.

**Electrox**

Gives the operator the correct uniform battery power for her talking set at all times — never too high, never too low. Trouble-free and inexpensive. The top quality converter of 110-volt current for this purpose in magneto exchange. Always in stock at Suttle.

See Your SUTTLE Catalog

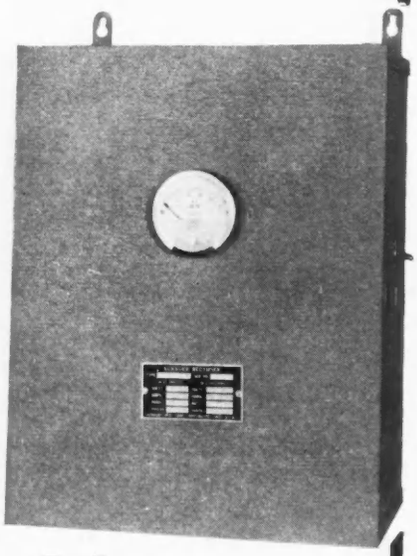
Serving Independent Telephone Men Since 1910

Suttle EQUIPMENT CO.

LAWRENCEVILLE ILLINOIS

Dependable Power

for Years-
and Years-
and Years-
of Service!



Schauer
ELECTROX

BATTERY ELIMINATORS
BATTERY CHARGERS

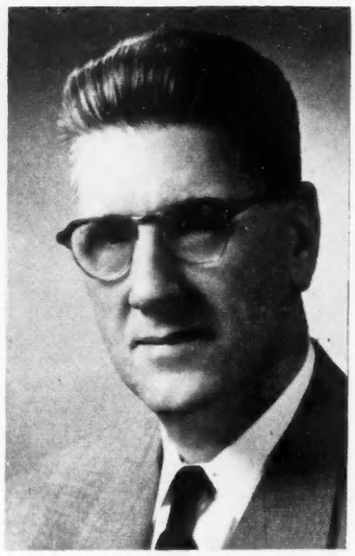
In sizes and capacities to meet every telephone power requirement.

See your Schauer Jobber.
Write for Bulletin 4516.

RECTIFIER DIVISION
SCHAUER
MANUFACTURING CORP.

4516 Alpine Ave., Cincinnati 36, Ohio

the Atlanta office, covering the states of Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi and eastern Tennessee. He joined Stromberg-Carlson in the fall of 1949, and worked as an apparatus



E. H. OTTERBACHER

engineer and a production engineer until he was given his present assignment in January of this year.

This policy of assigning carrier/microwave specialists to the branch offices is a result of greatly increased demand for Stromberg-Carlson equipment in this field of communications, according to T. C. Thompson, general sales manager of the Telephone Div.

## IT&T Names Three To New Executive Posts

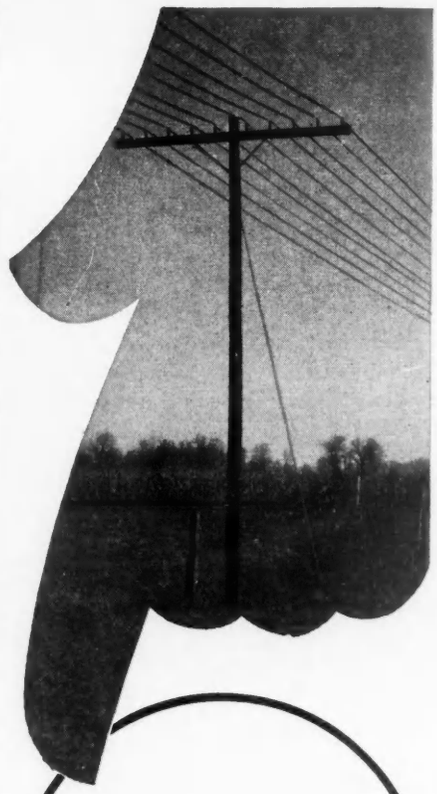
THE FOLLOWING executive changes at International Telephone and Telegraph Corporation were announced last month by Edmond H. Leavey, president:

Charles D. Hilles, Jr., vice president, former general attorney and more recently in charge of IT&T's Telephone and Radio Operating Department, has been appointed executive vice president of IT&T.

Henri G. Busignies, executive vice president of Federal Tele-communication Laboratories, U. S. research organization of IT&T, has been appointed president of that division.

Henry H. Scudder, vice president of International Standard Electric Corp., IT&T's holding and management unit for its manufacturing and research facilities overseas, has been advanced to executive vice president of that company.

Mr. Hilles, a native of Lancaster,



Crapo
HTL-135
INDIANA STEEL & WIRE CO.
MUNCIE, INDIANA U.S.A.

LOWER
Cost Per Mile

● Efficient rural telephone circuits can be built at minimum overall cost where Crapo HTL-135 High-Tensile Line Wire is used to full advantage. For Crapo HTL-135 makes possible spans up to 350 feet in heavy, 540 feet in medium and 650 feet in light loading districts. Longer spans mean fewer pole structures with substantial savings in material and labor costs per mile.

The rugged tensile strength of Crapo HTL-135 and its heavy galvanized coating provide dependable and economical service life on typical rural lines.

Ask your jobber for details or write direct for engineering data!

INDIANA
STEEL & WIRE COMPANY
Muncie, Indiana

C. D. HILES, JR.

Ohio, is a graduate of the Yale School of Law. From 1928 to 1941 he was associated with the firm of Root, Clark, Buckner & Ballantine, of New York, and, with the firm's leave, served on the legal staffs of the French and British Purchasing Commissions. He joined IT&T as assistant secretary and assistant general attorney in 1941, and a year later was named secretary. Mr. Hilles was elected a vice president and director of the corporation in 1944 and 1946, respectively; and in 1952 became its general attorney.

IT&T granted Mr. Hilles a leave of absence in April 1954 to permit him to serve as special legal counsel to the United States High Commissioner for Germany. His service there was for eighteen months and upon his return he became vice president in charge of IT&T's Telephone and Radio Operating Department, the position he held at the time of his latest advancement.

H. G. BUSIGNES

Mr. Busignies is a veteran of 28 years of IT&T service. Joining the Paris laboratories in 1928 as an electrical engineer, he spent the next twelve years on research and development of direction finders, instrument landing systems and early radar design. He came to the United States in 1941 and was one of the organizers of the Federal laboratories. He advanced from senior engineer through the posts of technical director, vice president and member of the management advisory board, and executive vice president to the positions he now holds. Mr. Busignies is a leading authority on radio and electronic aids to aerial navigation, and during World War II developed the shore-based direction finding system known as "Huff-Duff," which provided a vital factor in the war on enemy submarines. He holds more than a hundred patents in the aerial navigation, radar and communications field.

H. H. SCUDDER

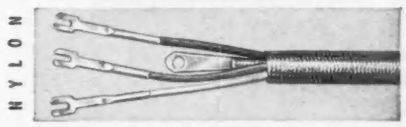
Mr. Scudder's career, after graduating from Yale University in 1917, has been almost entirely with IT&T. He was with IT&T's French associate, Le Material Telephonique, until 1930 and later served with IT&T System companies in Italy, Argentina and the United States. He was appointed executive assistant to the vice president and chief engineer of IT&T in New York in 1946, vice president of ISE in 1951 and became a member of its board of directors the following year.

Mr Scudder was in the armed forces during both World Wars. In the


CORDS BY Runzel

YOUR

BEST




BUY!

*Are you familiar with the features of these fine cords?*

**NEOPRENE** covered cords are a highly serviceable cord, extensively used in a wide variety of services. They are moisture and grease proof . . . easy to keep clean.

**NYLON** covered cords are a relatively new development in telephone cords. Their fine smooth texture makes them the preferred cords for switchboard use. They give long service. Preferred by operators because of their fast, easy handling.

**COTTON** cords are in standard use everywhere. Their fine woven wrap makes them very serviceable for all around purposes.

Take your choice—Neoprene, Nylon or Cotton. They're all high quality cords made in accordance with Runzel high standard of quality. We carry a large stock of cords for every purpose.

*Our geographical location means QUICK SERVICE.*

RUNZEL
Cord and Wire Co.
4723 W. MONTROSE AVE.
CHICAGO 41, ILL.

# NEW PRODUCTS' SHOWCASE

**To obtain complete data on products and services described in the department please fill out and mail the Reader's Service order blank shown on the opposite page.**

**Ladder Attachment**

A NEW SELF-LEVELING Ladder Attachment has been announced by Eden Enterprises, Inc.

The unit, called the "Safety-Level," adjusts itself to any terrain hydraulically. It locks with the same ease and sureness of a modern hydraulic automobile brake. When the valve, under the bottom rung, is open, the ladder levels itself and upon closing the valve the ladder is locked in position, ready for a safe climb.

The attachment comes equipped with safety grip feet which can be used on the rubber pads, as illustrated, for hard surfaces, or can be set with the safety spike protruding for use on loose ground.

The unit is constructed of aluminum and brass thereby eliminating corrosion problems. It can be attached to any ladder (wood or metal) in a few minutes.—For complete data, *Check New Product* 971.

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**"Sky-Master"**

THE POWERS-AMERICAN Division of McCabe-Powers Auto Body Co., St. Louis, Mo., has announced it is in full production on a second model of its "Sky-Master" Hydraulic Aerial Beam.

The new unit, designated the Series AB-1-41 "Sky-Master" carries a workman over, under, or around obstacles, in an insulated enclosure which permits him to work with ground-level ease in out-of-the-way overhead places.

A pair of independently-operated steel beams, installed on a rotating mast, move the work basket to any position within operating range. There are no pre-determined spotting positions. The outer beam can be moved to any point in an operating arc of 270 degrees, and the inner beam can be positioned any where in a 115 degree arc. Each beam is moved by a double-acting hydraulic cylinder, through a unique system of linkage which eliminates use of chains, sprockets, and other secondary means of actuation. The supporting mast, turned by an oil-driven motor through a reducer and a spur and ring gear, can be rotated continuously in either direction.

All movement is controlled by three levers beside the work basket, or by an additional set of controls on the rotating mast. By means of a parallel linkage, the work basket floor is held in a horizontal position at all times, and will remain level, through gravity, should the linkage be damaged. Pilot-operated check valves are installed on each cylinder to maintain work basket position in event of any line failure or damage.

When fully extended, Sky-Master has a ground-to-basket floor height of approximately 41 feet, enabling a workman to comfortably reach areas 46 feet above ground. The safe load capacity in all positions is 350 lbs., having a safety factor of 5. Hydraulically-operated outriggers are installed on each side of the body to assure absolute stability regardless of work basket position.

The Series AB-1-41 "Sky-Master" can be installed on slightly-modified standard bodies in the Powers-American line, or on a body designed to fit specific needs. Power for operation is derived from a hydraulic pump which is driven by a power take-off installed on the truck transmission. Other means of driving the unit, independent of the truck engine, are available.

"Sky-Master" can be furnished with an air compressor and receiver, having air lines extended to an outlet at the work basket. Other optionals, in addition to special body equipment, include pneumatic tree trimming tools; steel truck cab protector; signal lights and buzzers.

Complete details are given in Powers-American Bulletin #412, which may be obtained from McCabe-Powers Auto Body Company, 5900 N. Broadway, Dept. TE&M St. Louis 15, Mo., or by *Checking New Product* 972.

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**Outlet Box**

THE PRODUCTION and immediate availability of a new, molded

fiberglas reinforced plastic outlet box has been announced by Porcelain Products Inc., Findlay, Ohio. The new box, cataloged as the #9314-C, combines the desirable features of standard steel boxes with the inherent qualities of reinforced plastic, plus economy and ease of installation. The fully insulated box completely eliminates need for grounding on many circuits. The strength, impact and electrical resistance of fiberglas reinforced polyester produces an outlet box that is durable, moisture and fire resistant, will withstand high temperatures, will not warp, stretch or distort or deteriorate with age, yet weighs a fraction as much as their steel equivalent. The FRP outlet box will not corrode or attract condensation, making it ideal for use in damp places.

Also, for the first time, an insulated outlet box is available with *standard round* knock outs, completely sealed and easy to remove, permitting the use of standard connectors when desirable. The #9314-C Octagon Box is furnished with or without internal clamps. — For complete data, *Check New Product* 973.

### Cushion Throat

A NEW cushion throat for cutting pliers has been announced by Utica Drop Forge & Tool Corp.

The cushion throat is a rubbery Plastisol bonded to the cutting edges of the pliers. When a cut is made, this cushion holds the cut end of the wire until the pliers are again opened.

The manufacturer claims that the heavy use of cushion throat pliers in assembly line operations caused a loosening and tearing of the old style cushion. Now the cushion is anchored firmly to ridges which have been milled in the sides of the plier jaws to prevent this. The new method of anchoring has increased the life of the cushion throat 50 to 100 times.

The cushion throat has proven especially valuable in electronics work, according to the manufacturer, where cuts can be made inside a chassis without any danger of the snips of wire falling into the set. For complete data, *Check New Product* 974.

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ADV. 11..... ADV. 12..... ADV. 13..... ADV. 14..... ADV. 15.....

# THE BUYERS' GUIDE

**ADVERTISING.** Directories — *General Telephone Directory Co., 1800 Busse Highway, Des Plaines, Ill.*—[ADV. 1]

**BELTS — CLIMBERS — COMPLETE LINEMEN'S EQUIPMENT,** *W. M. Bashlin Co., Bashlin Bldg., Grove City 1, Pa.*—[ADV. 2]

**BOOTHS—Acoustic Telephone** — *Sherron Metallic Corp., 1202 Flushing Ave., Brooklyn 6, N. Y.*—[ADV. 3]

**CORDS, Switchboard (with or without plugs), Instrument (retractable and regular) and Operators** — *Commercial Cord & Supply Co., Inc., 26 Main St., Clifton Springs, N. Y.*—[ADV. 4]

**INSULATORS, Porcelain** — *Porcelain Products Inc., Box 300, Findlay, Ohio.*—[ADV. 5]

**PIPE PUSHERS** — *Giant Manufacturing Co., South 6th St., at 12th Ave., Council Bluffs, Iowa.*—[ADV. 6]

**POLE HOLE DIGGERS** — *For derrick mounted trucks. Tele-E-Lect Products, Inc., 9613 Minnetonka Blvd., Minneapolis 26, Minn.* —[ADV. 7]

**POLES, Southern Yellow Pine** — *Taylor Colquitt Company, 217 E. Main St., Spartanburgh, S. C.*—[ADV. 8]

**POLES, Southern Yellow Pine** — *Texas Creosoting Co., Orange, Texas.*—[ADV. 9]

**PROTECTIVE EQUIPMENT** — *Reliable Electric Company, 3145 Carroll Avenue, Chicago 12, Ill.*—[ADV. 10]

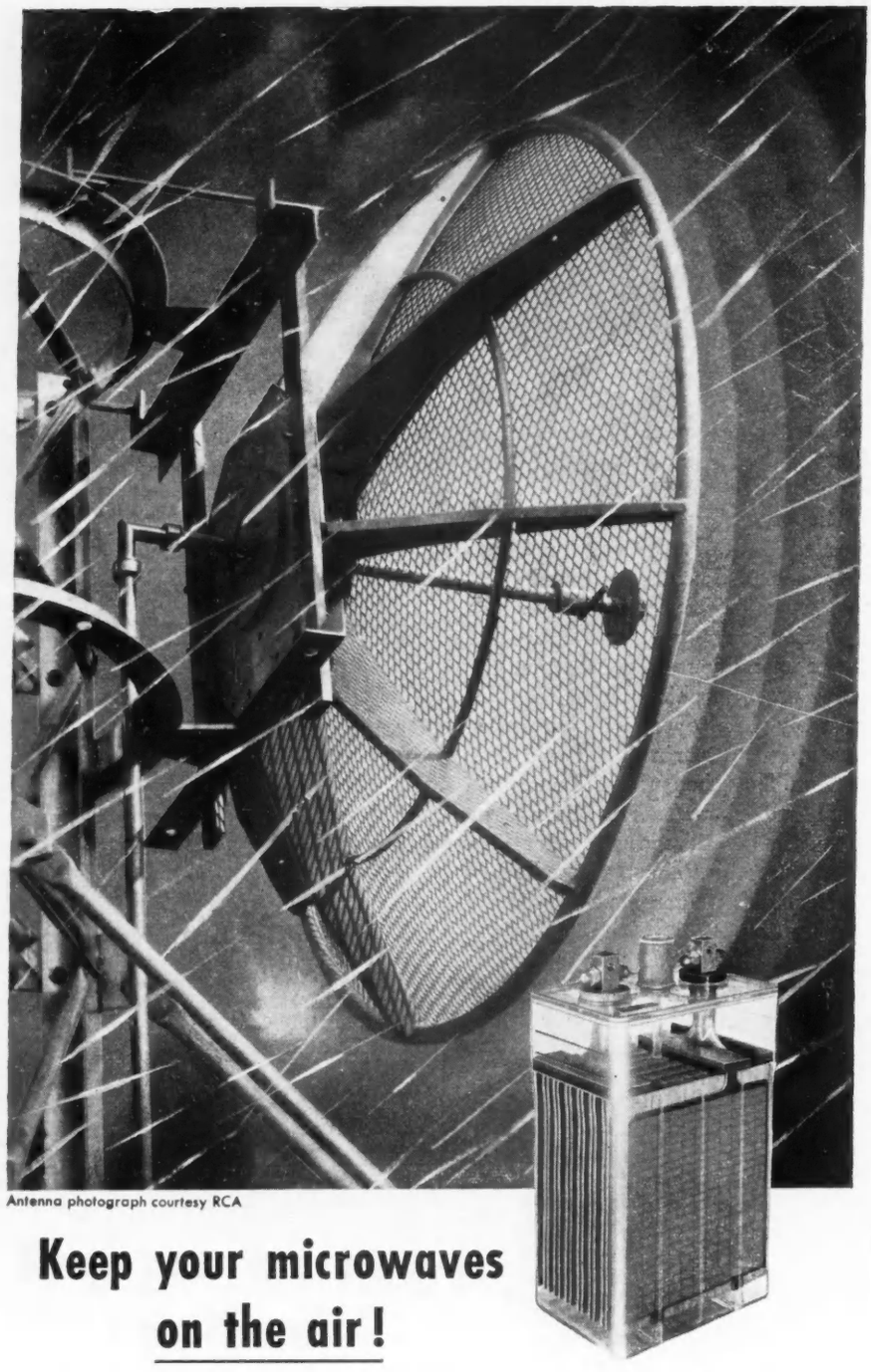
**REBUILT TELEPHONES & SWITCHBOARDS** — *Telephone Repair & Supply Company, 1760 Lunt Avenue, Chicago 26, Ill.*—[ADV. 11]

**TRUCK BODIES** — *Highway Trailer Co., Edgerton, Wisc.*—[ADV. 12]

**WIRE, Insulated — DATED DROP WIRE — Neoprene or Weatherproof** — *Alphaduct Wire & Cable Co., New Brunswick, N. J.*—[ADV. 13]

**WIRE, Insulated Drop and Bronze or Copperweld** — *Acorn Insulated Wire Co., Inc., 36 Freeman St., Pawtucket, R. I.*—[ADV. 14]

**WIRE, Telephone, for all inside and outside uses** — *Whitney Blake Co., New Haven, Conn.*—[ADV. 15]



Antenna photograph courtesy RCA

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first conflict he was in the Field Artillery, and during World War II, attained the rank of colonel in the Signal Corps serving in the Mediterranean area. He was Chief of Communications for the Allied Commission in Italy until his return to IT&T in 1946.

## New Bulletin Describes Aluminum Wire Products

BULLETIN DH-537, released by Page Steel & Wire Rope Division, American Chain & Cable Co., Inc., Dept. TE&M, Monessen, Pa., describes ACCO Aluminized products, wires that have the strength of steel and the corrosion resistance of aluminum.

Applications of this wire include: ASCR core wire; strands for ground, guy and messenger wires; telephone wire; tie wire; and lashing wire. Physical characteristics and miscellaneous applications involving corrosion and corrosion coupled with high operating temperatures are also discussed.

## Oliver Iron & Steel Sells Pole Line Division

OLIVER IRON & STEEL CORP. has sold its Pole Line Materials Division to Electrical Manufacturing Co., of Battle Creek, Mich. Announcement of the sale was made by William H. Rea, vice president, Oliver Iron & Steel and George C. Price, president, Electrical Manufacturing Co.

No changes are contemplated in plant location, customer service, marketing policies and organizations, manufacturing practices or key personnel.

Mr. Price will head the new firm. G. Mayne Daly, former Oliver general manager of sales, has been named vice president of marketing. A new research, product design and development group will be established at the company's headquarters, headed by James H. Foote, presently vice president and chief engineer of Electrical Manufacturing.

Electrical Manufacturing is purchasing the assets, liabilities and Birmingham warehouse of Oliver, and has taken a five-year lease on the section of the Oliver plant devoted to Pole Line manufacturing, which accounted for approximately 25 per cent of the employes and space of the South Side plant.

Oliver recently sold its Fastener Division equipment to Pittsburgh Screw & Bolt Co. for an undisclosed amount

of Pittsburgh common stock. This division accounted for 75 per cent of the employes and space of Oliver.

Oliver intends to retain its holding in both Pittsburgh Screw & Bolt and Electrical Manufacturing Co. In addition to the land and building, Oliver also owns the Allegheny and South Side Railway serving the factories in the immediate South Side area, which it will continue to operate.

With the sale of the Pole Line and Fastener Divisions, Oliver will now concentrate on the development of it hydraulic business, the Berry Division in Corinth, Miss.

Electrical Manufacturing, founded in 1940 by Mr. Price has had a steady growth and acceptance in the Pole Line Materials business. Mr. Price expects the addition of the Oliver business to accelerate the rate of growth previously achieved by his company.

Oliver Iron & Steel Corp., founded in 1863 by Henry W. Oliver, is one of Pittsburgh's oldest firms. Its Pole Line Division started in 1894.

## New Bulletin Describes Trenchers and Backfillers

THE COMPLETE line of trenchers and backfillers — including the new L-270 ladder-type trencher — is featured in a new 4-page bulletin published by The Cleveland Trencher Co. The L-270, one of the nine models, is capable of digging wide, deep trench in alleys and other narrow areas.

Information on the capacities, specifications and dimensions of the nine machines has been organized to facilitate a quick convenient comparison of the models. Special advantages and Cleveland design and construction features incorporated in each machine are covered in the brief text.

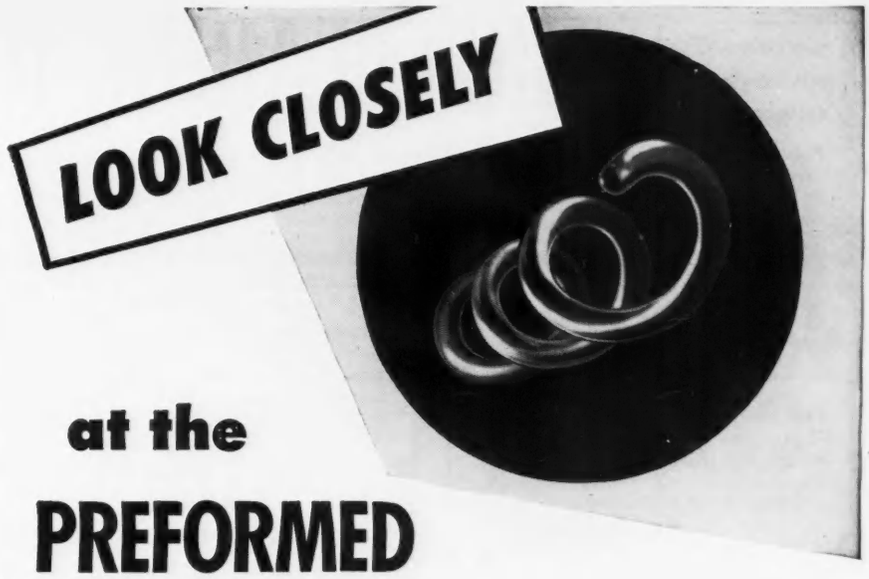
Copies of the new Bulletin can be obtained free by writing The Cleveland Trencher Company, 20100 St. Clair Ave., Dept. TE&M Cleveland 17, Ohio.

## FWD Names Casey Utility Sales Manager

JOHN M. CASEY has been named utility market sales manager for Four Wheel Drive Auto Co., Clintonville, Wis. Mr. Casey, who has more than 13 years service with FWD, succeeds T. G. Shedore, who is retiring after 39 years with the company.

Mr. Casey began his FWD career

*Please turn to page 100*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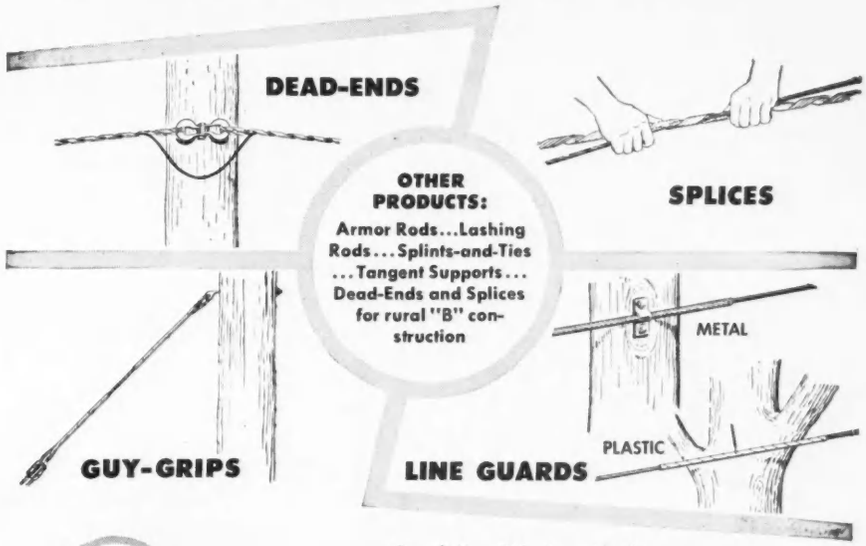


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SUbcycle, Model M. 7.5-60 @ $25.00 ea.

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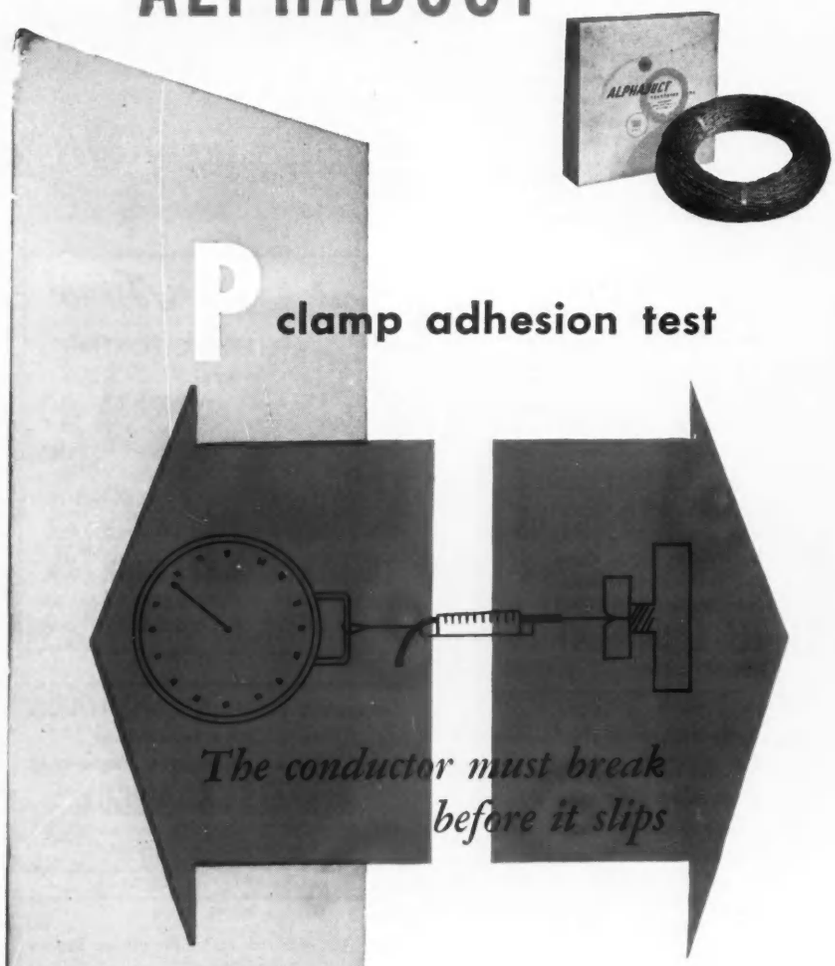
# ALPHADUCT




P clamps are the most widely used method of attaching drop wire to buildings. Lest you may worry about a P clamp causing slipping of the insulation or jacket on Alphaduct Neoprene Jacketed Drop Wire — read about this Alphaduct service test. This test is made daily.

A sample of Alphaduct wire is inserted in a P clamp with 12 inches of the wire projecting from the top of the clamp. The bail of the clamp is then inserted in the upper jaws of a tensile testing machine, and the end of the wire is stripped free of jacket and insulation and inserted in the other end of the machine.

The jaws of the machine are then gradually separated until the conductor breaks. The conductor must break before there is ANY slipping of either the jacket or the insulation.

Don't have any worries about a little old P clamp hurting ALPHADUCT drop wire. Try Alphaduct. It's dated by a color coded thread so you can see for yourself how long it lasts, how much money it saves.

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THE LINDSAY TELEPHONE SUPPLY CO., CLEVELAND, OHIO


*(Concluded from page 97)*

in the advertising department in 1937. Following a 3½-year Navy hitch, he entered the sales promotion department in 1946. In 1947 he became a field utilities specialist. In 1949 he was named district sales supervisor for Pennsylvania, Maryland, Delaware, and Virginia, and in 1950 he became government sales representative at Washington, D. C. He joined Aetna Life Insurance Co. in 1954 and for the past year and a half has been with J. W. Mortell Co. as a district manager, a position he resigned to return to FWD.

JOHN M. CASEY

Mr. Shedore has been with FWD continuously since April 17, 1917, except for wartime leave in 1942-44 to work with the U. S. Ordnance Department.

**IT'S A FACT—**

**MANAGERS of many telephone companies have found it pays dividends in quite a few ways to have employes keep up with what's new in communications by reading TELEPHONE ENGINEER regularly.**

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STROMBERG-CARLSON

# Transmitter

A DIVISION OF GENERAL DYNAMICS CORPORATION

VOLUME 5, NUMBER 5 • AUGUST, 1956

*Transistors replace tubes*

## In this really new Subscriber Carrier system

The new Stromberg-Carlson Subscriber Carrier system represents the combined efforts of a staff of engineers skilled in all phases of electrical and mechanical design. It didn't just happen; but rather is the culmination of many months of consumer research, determining the circuit requirements, investigation and testing of components, and a bold new design directed toward low cost, reliability and freedom from maintenance problems.

The first step in the program was to determine as concretely as possible the most pressing needs of customers requiring this type of system, and to ascertain whether such systems as were then available had adequately met these requirements.

This was followed by an exhaustive study of the relative merits of available frequencies. The selected range places the lowest frequency to insure against interference with voice circuits; the highest was kept below the point where line attenuation would become excessive and crosstalk become objectionable. Intermediate frequencies were chosen so as to hold filter design and manufacturing costs to a minimum.

Leading toward the final design was the basic decision to use transistors as the fundamental element of circuitry. This brought with it many new problems to be solved, but provided the very desirable advantages of small size, low power drain, and theoretically infinite life of these units.

In keeping with expressed desires of customers surveyed, it was decided to produce a system in which only those elements essential for fulfilling normal operating requirements would be included as basic equipment. For example: terminals were engineered for operation without compandors, and plug-in compandor units are provided on an optional basis, since appreciable savings can usually be realized by omitting them in cases where crosstalk and line conditions are acceptable.

Before the circuitry and mechanical details of the system could proceed further, a careful investigation of components — both those which were currently available and those which had to be designed—was undertaken. Particular attention was paid to the selection of long-life components that would operate satisfactorily under the most severe climatic conditions.

The Stromberg-Carlson Subscriber Carrier system, adhering to these fundamental design characteristics, provides for up to five (5) channels superimposed on each physical pair, for a maximum gain of up to fifty (50) subscriber stations on a single pair of conductors. It is a stackable system so that any channel or group of channels may be added or transferred at any time. The system is designed to function with almost any

***These men have carried principal responsibility in design of Stromberg-Carlson Subscriber Carrier. From the left: Bogdan R. Stachiewicz, project engineer; Robert L. Layburn and Donald F. Jamieson, electrical design; Harry Buck, mechanical design.***

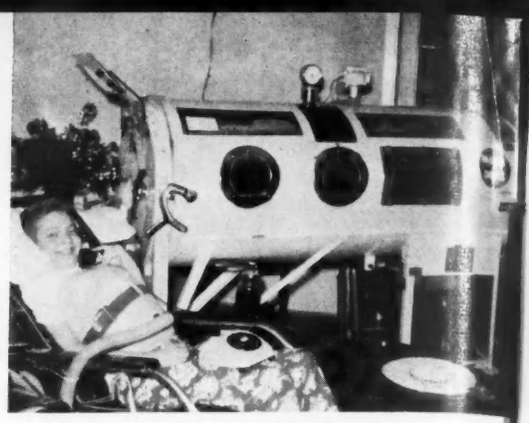
presently designed central office and station equipment.

Among the features which have greatest appeal to operating personnel are the following:

1) Simplicity of installation — plug-in printed wiring circuit cards eliminate most of the "line-up" procedures as usually understood.
2) Reduction of maintenance and trouble shooting to the very minimum.
3) Low power drain — a vital consideration, especially at subscriber terminals, during failure of commercial power.
4) Supervision, dialing and ringing by on-off carrier, with ring trip feature during ringing or silent interval.
5) Optional voice compandors, used only as line conditions dictate.

In offering its Subscriber Carrier system to telephone companies, Stromberg-Carlson believes it has an effective answer to the perennial problem of providing additional subscriber stations at a cost which assures a substantial net increase in revenue.

For further information, write for Stromberg-Carlson Bulletin T-2010



*Sammy Laroe, 13 year old polio victim, is affectionately known as Junior Mayor in Goodrich, Texas. Sammy placed the first call over the recently installed XY Dial System of the Goodrich Telephone Company.*

# Two recent XY Dial cutovers in the State of Texas

The towns of Goodrich and Buckholtz have recently been converted to XY dial operation, adding to the very impressive list of Texas communities now employing this type of dial service. Mr. and Mrs. L. A. Delaney own the exchange at Goodrich; have designed an office which will easily grow with the expansion which normally follows a changeover to XY dial modern telephone service.

The Buckholtz exchange is part of the Mid-Texas Telephone Company group, whose headquarters are in San Antonio. Mr. W. S. Bain, a director of the Texas Telephone Association, is president of the company; Mr. W. E. Lyon is vice president and general manager. Other exchanges of this company now have or soon will be enjoying XY dial service.

*Mr. and Mrs. L. A. Delaney, owners of the Goodrich (Texas) Telephone Company, shown in the exchange building.*

*Present for the cutover proceedings at Buckholtz, Texas. L-R Mr. Chris Finn, plant superintendent; Mr. W. E. Lyon, vice president and general manager; Mr. W. S. Bain, president; Mr. H. Brink, construction superintendent — all of the Mid-Texas Company.*

## What's in a name?

A great deal, apparently — if the name is Stromberg-Carlson.

As you see in the cartoon at the left, XY means Stromberg-Carlson. It seems that in San Francisco, readers of the "Chronicle" don't even require that much of an explanation of the company name, as witness the following excerpt from David Hulburd's "talk Around Town:"

"Druggist Will Kniffel's favorite customer, at his 26th and Mission pharmacy, is Al Stromberg. Al Stromberg's doctor is Everett Carlson. Druggist Kniffel takes great pleasure, he says, in writing out a Stromberg-Carlson prescription."

# Meet the men who handle supplies

You seldom see the nine men shown here with C. J. Reynolds. They are the men behind the salesmen, sales engineers and managers, who keep the wheels turning in their own offices; who help you fulfill expansion promises, and assist you when trouble or disaster strikes. They do their jobs, and don't talk about themselves, so we are.

If *Ralph Pouk's* original plans had matured he would be writing this, as he prepared for journalism. But when he came to Stromberg-Carlson after Air Force duty he learned to love cable, cross-arms and hardware. Through proximity, as Office and Supply Manager — Chicago Branch, he assists C. J. Reynolds with overall supply policy. Ralph has three daughters — Barbara Ann, Janet and Karen.

*George Gaydos*, who has been in the Atlanta Branch for the last year or so, is returning to his former post as Order Editor in Chicago — a job he had held for seven years. George — or "Jerry" as most know him — was a business major in college, and before joining Stromberg-Carlson worked in the production control departments of two Chicago manufacturing firms. For outside activities he prefers the more relaxing pursuits; enjoys good books and writing short stories.

Dean of the group in service with Stromberg-Carlson is *Earl Roesch*, Office and Supply Manager — Rochester Branch. In the Cost and Contract Termination departments, Earl saw the company through the hectic World War II scramble. After a term with Radio Sales he has for several years handled supply sales for the East. Active in many company organizations, Earl is also a Telephone Pioneer. The Roesch's have three children: Barbara, 19; Kenneth, 8; and Leah, 5.

*John Garbutt* is right-hand man in the Rochester office. At the University of Rochester he studied business administration, worked up to his present order editing job through the stock room and commercial sales. John's company service was interrupted by a 2-year duty with the Navy. The Garbutts have a 3-year-old son, John.

*Walter Baum* knows his way around the Kansas City warehouse, where he was manager for ten years before taking on the larger assignment as Office and Supply Manager. After graduation from Kansas City Polytechnic he worked first in automotive sales and service, then for North American Aviation. Walter is a member of the American Legion and the Scottish Rite, a deacon in his church, and enjoys the sports common to the telephone fraternity.

For the last eight years *Joseph Mullin* has been assisting Kansas City customers with their construction and supply needs. He understands the other fellow's point of view, for he worked on outside plant contracts of the Kansas City Light and Power Company. Outside interests include social service projects, church and scout activities, occasional fishing in the Ozarks.

*Philip Blood* is Office and Supply Manager for the Pacific Coast — like all others in the San Francisco Branch is impatiently waiting for the completion of the new office building and warehouse. Phil started medicine at University of Colorado, switched to business and before coming to Stromberg-Carlson was associated with the Railway Express and an oil company. Home and grown-up family of two daughters and a son are his all-absorbing interest.

*Ernest P. Riviere* may ask you to call him "Paul," and in the five years he has been at Stromberg-Carlson he has been "running" orders in a manner to make one remember Longfellow's famous poem. Before returning to work in San Francisco he was employed by Maydwell and Hartzell in Seattle. After hours he enjoys art, music, skiing.

A recent transfer from the Chicago Branch is *Frank Kasper*, now Order Editor for the Atlanta office. His experience as Parts Manager for an auto firm, prior to joining the Stromberg-Carlson sales staff, has seasoned him for his new post. Frank chooses the more active hobbies: has assisted in Scout projects, given Red Cross instruction in handling small boats, taken a turn at home remodeling. More and more, however, the center of attention is small daughter Kathleen Kasper.

C. J. Reynolds
National Supply Manager
Chicago

Ralph Pouk
Chicago

George Gaydos
Chicago

Earl Roesch
Rochester

John Garbutt
Rochester

W. G. Baum
Kansas City

J. W. Mullin
Kansas City

P. W. Blood
San Francisco

E. P. Riviere
San Francisco

Frank Kasper
Atlanta

*Grand River Mutual is merger of 31 exchanges in Missouri and Iowa. In dial program, some were combined for greater efficiency.*

## *One of the largest of its kind:*

# The Grand River

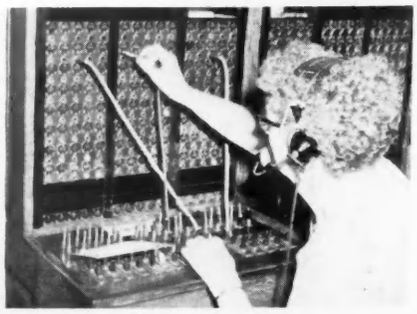
*Parade of Progress starts with switchboard installed by Stromberg-Carlson before turn of century.*

Have you seen what's happening right now in north-central Missouri and adjacent towns in Iowa? If not, it would be well worth your while to pay a visit.

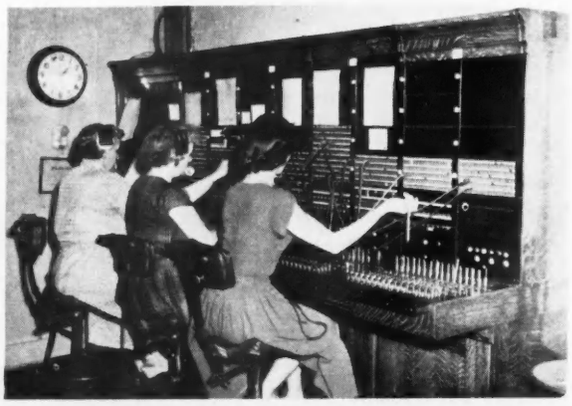
An 11-county area (perhaps it is more by now) covering about 700 square miles in the watershed of the Grand River was formerly served by 31 loosely grouped and discouragingly unprosperous manual exchanges.

On August 1, 1953, the Grand River Mutual Telephone Corporation set about to improve the situation, and Mr. C. W. Chastain was brought in to be general manager. For "Bill" Chastain this was indeed coming back home: he was familiar with the territory from boyhood, had started in a bank nearby, and entered the telephone business as auditor for the Middle States Utilities Company at Plattsburg, Missouri. In 1949 he became commercial manager of a group of tennessee exchanges operated by Southern Continental Telephone Company until selected for his present larger responsibilities.

The Grand River Mutual was the largest R.E.A. telephone system at the time it was brought to bids. Not only the magnitude but the urgency of the job required the greatest concentration of skill and energy. Almost all of the existing rural lines were beyond repair; the bulk of this tremendous rebuilding program came



*Bertha Craig last June was still operating this magneto switchboard from her home in Cainesville — has served 56 years as operator.*



*Bertha Gale, center, is chief operator at Bethany. Combination switchboard about to become history as XY dial conversion date approaches.*

*What better way to celebrate progress than with a parade! Each major conversion in system has been recognized with public celebration.*

*Mr. C. W. Chastain, manager of Grand River Mutual, and Mrs. Chastain, joined fellow managers and wives at Kansas-Missouri Convention.*

# Mutual, of Princeton, Missouri

during extreme shortages of cable and other vital materials. There was some question whether antiquated central office equipment could limp through the conversion period. In spite of all difficulties, there has been little deviation from schedule: ten XY Dial offices, replacing fifteen former manual exchanges, are now in service and the program will average out one new dial exchange a month until the initial contract is fulfilled. Present plans call for bringing modern dial service to about 12,000 subscribers in Missouri and Iowa.

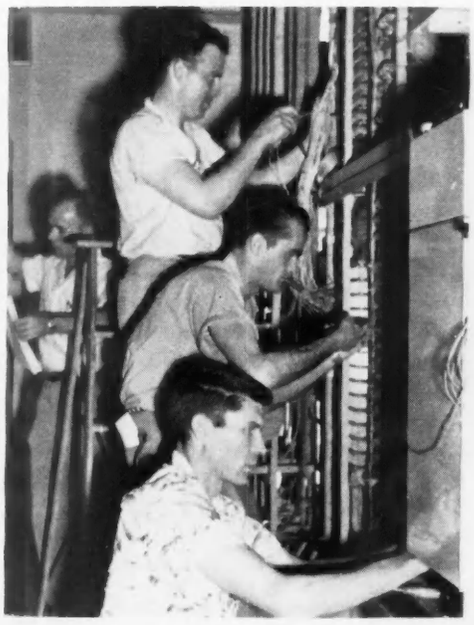
In addition to Mr. Chastain, others in the management group of Grand River Mutual are Mr. John Graham, assistant manager; Mr. H. L. Thomas, plant manager; Mr. Lowell Moore and Mr. Emmett Wiley, traffic and commercial managers for Missouri and Iowa respectively; and Mr. Howard Garrison, auditor.

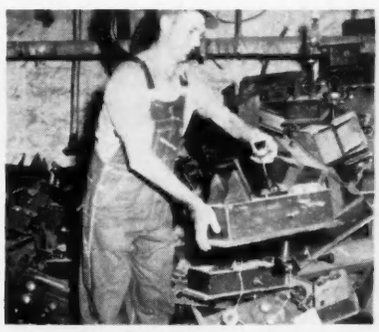
The firm of H. N. Roberts, of Lubbock, Texas, has handled the engineering for the Grand River Mutual telephone system.

*As part of the improving service, a new business office was opened at Trenton, Missouri, with Miss Rose Wiley in charge. Standing behind Miss Wiley are L-R: Ralph E. Parker, Director; Lowell Moore, Traffic and Commercial Superintendent for Missouri; Mayor Joe Cook, of Trenton.*

*These men are pushing to maintain schedule. Front to back — Stromberg-Carlson installers D. M. Hollister, B. J. Houser; J. T. Clark, the foreman; Marvin Bridges, Grand River Mutual switchman in Ridgeway area.*

*Architect's sketch of new centralized business and administrative office at Princeton, Missouri.*



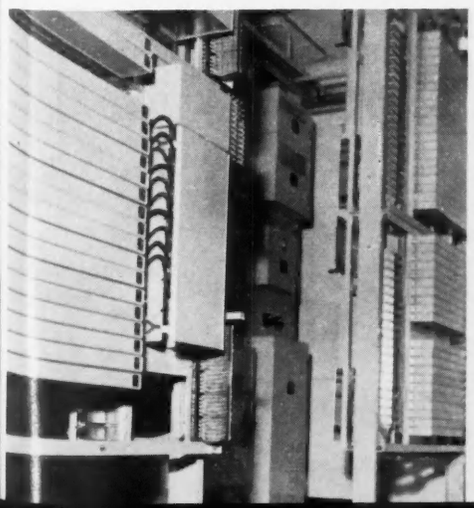


*Another for the scrap heap! Coda Clapham of Princeton plant crew stands amid pile of replaced magneto phones.*

*Nearly 12,000 customers require a large business staff. Accounting comes under direction of Howard Garrison, Auditor.*

*C. W. Chastain, Manager, checks the hour as Dr. B. I. Axtell places first call over the new dial system at Princeton.*

*Typical of the score of XY-dial offices presently installed or planned for Grand River.*



*New industries are moving in to balance economy in western Wisconsin. The Champion Aircraft Company at Osceola makes private 2-seater planes — presently completes seven new planes every week.*

## *Green is the Springtime i*

# Old-time Users welcom

"Amery, Wisconsin, calling." It was Leo Rubendall saying that he'd be in soon to pick me up at the St. Paul hotel; we had plans to visit the Wisconsin companies shown on these pages. And if the call had been placed a few weeks later, it would have come through Amery's new XY Dial exchange.

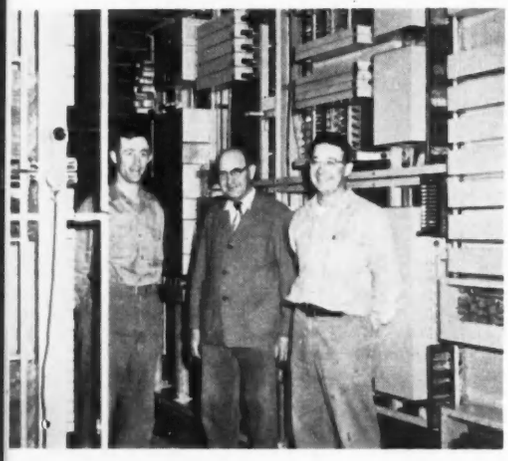
Our first stop was with Eugene Beyl at *Osceola*. He was dictating a letter, checking files and carrying on a telephone conversation over the Hands-Free Telephone without breaking stride. With natural pride he showed me into the exchange room, pointed out where original plans wisely provided for the 175 station growth which has already come and how future requirements will be handled.

Osceola now has a new industry — Champion Aircraft — and expects a minor "boom" as employes move out from the Twin Cities. Mr. Beyl, a former banker, combines prudence with vision; as the town grows, he'll be ready.

The Griffin brothers, George and Glenn, had a spanking new XY Dial office at *Amery* almost ready for conversion. This family company, in a beautiful lake and dairying region, has grown both through expansion and acquisition since its founding in

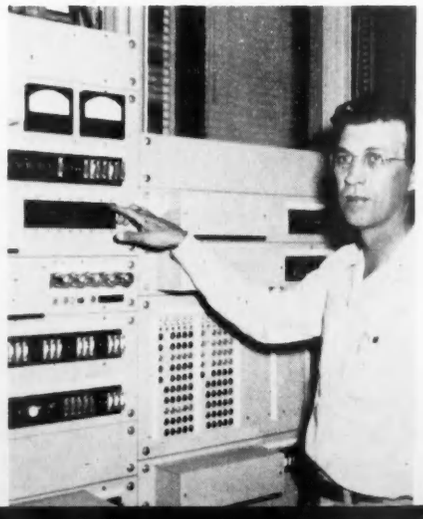
*Eugene Beyl, manager of the Farmers Mutual Telephone Company of Osceola, finds the Hands-Free Telephone a great time saver and an extra pair of hands.*

*Mr. Beyl, flanked by the men who keep his exchange in tip-top condition. Bernard Miller (right), wire chief, is graduate of XY Training School.*



*200 miles finished; about 80 to go. Glenn Griffin (left), plant superintendent of the Amery Telephone Co., and part of the line crew back from cable stringing preliminary to dial conversion which took place early in June.*

*George Griffin, manager of Amery Telephone Co., shows how he will throw master switch cutting exchange to dial service.*



*Each has done his job well. George and Glenn Griffin talk things over with Leo Rubendall, Stromberg-Carlson representative, in front of new Amery, Wisconsin, office.*

*merica's Dairyland*

# ew XY Dial customers to fraternity

1898 by George F. Griffin, grandfather of the present manager.

Just prior to this visit the Griffin's Deer Park exchange had been cut to XY Dial, with toll carrier to Hudson. It has been with more than the usual interest that I read of the very successful dial cut of 1550 subscribers at Amery on June 10, and learned how pleased the Griffins were with the splendid work of E. L. Gear, service engineer, and the Stromberg-Carlson installers under direction of Hubert Nelms and Al Hambric.

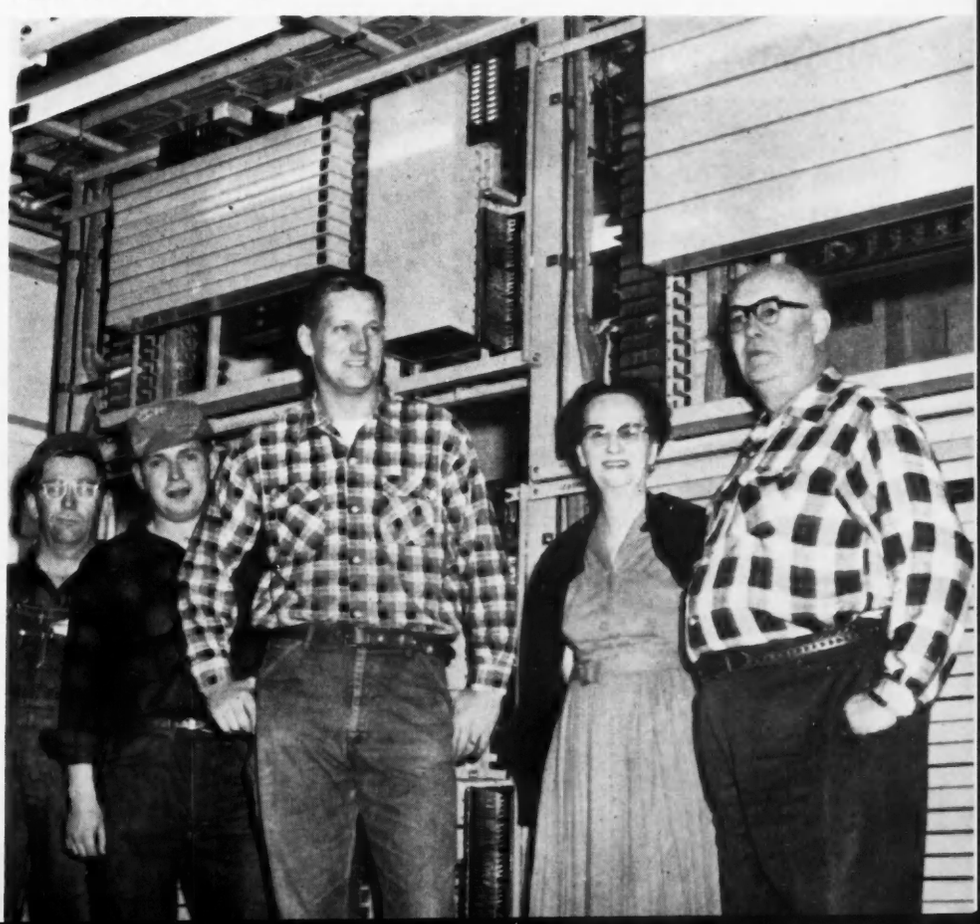
Our next stop was at *New Richmond*, where James Smith, manager of the St. Croix Telephone Company, has several industries to serve, including the interesting Cashman inflatable plastics with a $14,000,000 gross. Jim Smith started in the telephone business in 1936; has seen both local and toll traffic double and redouble. His XY Dial exchange will be in operation next year.

We arrived in *Mondovi* on Stanley Lockwood's birthday. This company was founded by his father in 1904 and cut to XY Dial on the 50th anniversary. Harley Hesselman, Stanley's son-in-law, and Lavergne Nye handle the equipment and plant; Mrs. Walter Rohrschieb, former chief operator, takes care of business matters for the 1200 subscribers.

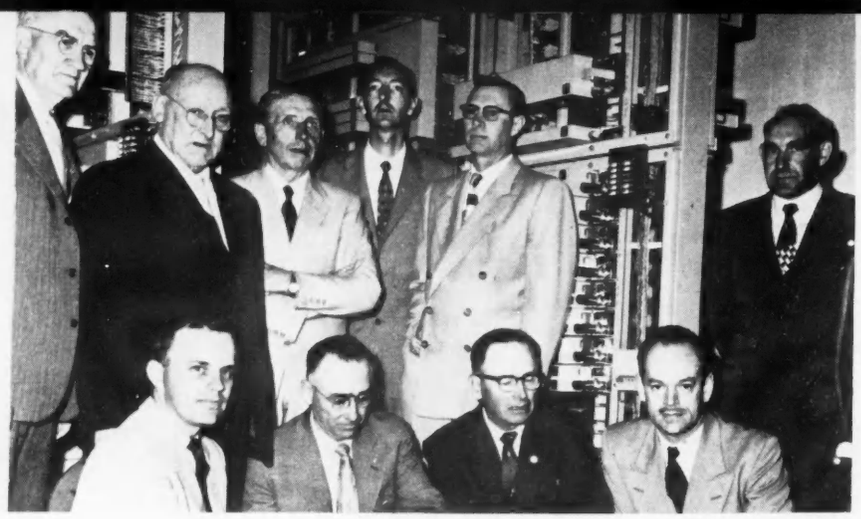
*Miss Marian Bergseng (standing center), chief operator for James Smith at St. Croix Telephone Co., uses about 20 girls to handle present local and toll calls manually.*

*Planning where the new XY Dial building will be built at New Richmond, Wisconsin. Paul Westburg, wire chief, who has been with company 39 years holds tape; James Smith, manager, checks the blueprints.*

*All is well in Mondovi. Stanley Lockwood (right), manager of the Mondovi Telephone Co., leaves operation of his dial equipment in capable hands of Harley Hesselman (center) — XY Training School '54 — and Lavergne Nye, looking over Harley's shoulder. Mrs. Walter Rohrschieb is office manager.*



*Installation almost complete at Amery, George and Glenn Griffin relax for a moment with Mr. R. T. Evans, center.*



*Philomath, Oregon. Standing: W. W. Jones, Fay Backley, Philip Hult, directors; John Maurer, plant engineer, Robert Stone, director; Karol Eiche, wire chief. Seated: E. D. Larson, Stromberg-Carlson; W. E. Wilkinson, A. C. Taylor, directors; Allen Gross, office manager.*

## 15 Offices in Philomath, Oregon, Group

South and west of Portland. Nature used a lavish hand: seagirt playground. forest-clad mountains. fertile intervale. Here lies the service area of the Pioneer Telephone Cooperative, a 15-exchange system with headquarters in Philomath. Oregon. The 2000 or so present-day subscribers "never had it so good" as the last of these offices has been converted to XY Dial operation and up-to-the-minute service. toll-free throughout the system. has replaced the inconvenience of a multitude of small. inadequate manual exchanges.

Mr. Rodney Cummings. manager. developed a program that reached out to extend telephone service for the first time to many in the fringe areas

Also in engineering the project. wise provision was made for the inclusion of another 1000 or more subscribers in the next few years: this margin has already dwindled as superior service gives rise to increased demand.

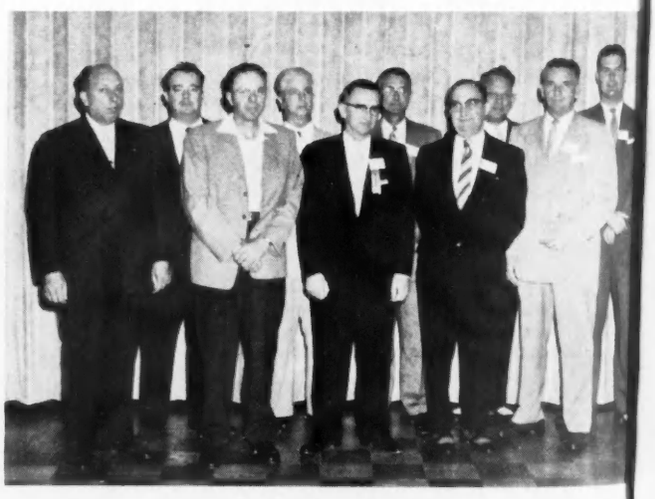
The Pioneer Telephone Cooperative was formed in 1950. and at the time of its incorporation took in 962 subscribers from the predecessor system. Outside reconstruction was the major task for the first few years: once this was accomplished the central office conversion program could be undertaken and the majority of these dial offices have been in service for over a year.

*Mr. Rodney Cummings (left), manager of the Pioneer Telephone Cooperative with headquarters at Philomath, and Bala Offeri equipment superintendent.*

## At Kansas-Missouri Convention

*Mr. Harold Stouffer of Granby, new president of Missouri Association, and Mrs. Stouffer.*

*Directors of Kansas Association. L-R. S. V. Lyons, Kansas City; Douglas Gleason, Ottawa; Howard Ellis, Haviland; Ross Gault, Wellsville; Herbert Welsh, president, Effingham; J. G. Kreamer, Prairie Village; Harry Miller, Great Bend; Carl Ulffers Jr., Topeka; R. W. Warren, Ellinwood; Carl Brecheisen, Dodge City.*



*Frank Micka and Roeg Cushing of Stromberg-Carlson, with M. S. Bodine and Ken Dahlstrom of Jefferson City, Missouri.*

**STROMBERG-CARLSON TRANSMITTER**

Published by
STROMBERG-CARLSON COMPANY
A DIVISION OF
GENERAL DYNAMICS CORPORATION
Rochester 3, New York
GEORGE B. FORBES, *Editor*

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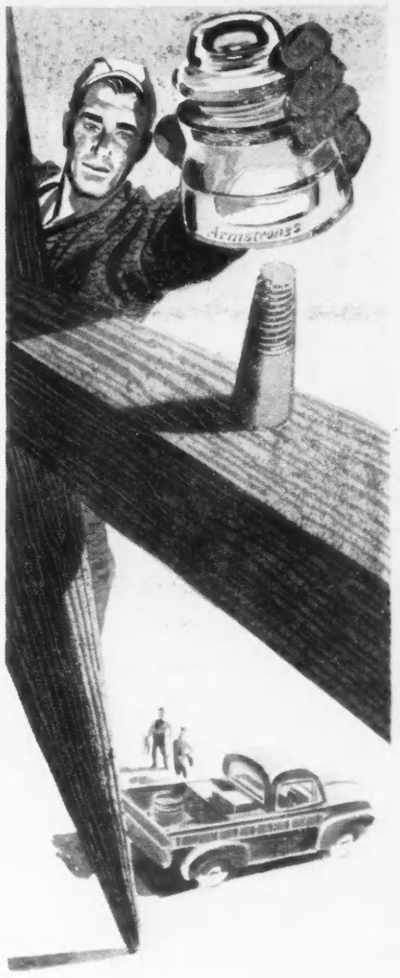


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Armstrong Glass Insulators go on pins easily because every insulator is hand gauged before it leaves the factory. This careful control insures uniformity of thread contours and pin cavities. There's no time lost on the job adjusting insulators to pins.

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*Watch Armstrong Circle Theatre every other Tuesday evening on NBC-TV.*

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# the BACK of the BOOK

By John G. Reynolds

**Customer Relations**

WE hear, by way of *S. W. Bell News*, that during a Houston Mother's Day party, an elderly woman entered and was greeted by a hostess, who pinned a flower on her and took her on a tour of the building.

"Who's your daughter?" the hostess asked.

"Oh, I don't have a daughter here," the lady replied. "I just came in to pay my bill and I've never been treated so royally in my life."

**"Code-Talk"**

IT ISN'T just individuals, separated by travel, who develop a "code" system to save the cost of long distance calls. Sometimes an over-zealous junior executive will do the same, anxious to make a good showing on office overhead.

The Ohio Bell people, in going over reports of long distance calls that had been refused by the party called and found that in one branch office, 15 of the 20 employes supposedly had the first name of "Otto."

The telephone company experts rapidly decoded the system but won't reveal it, of course — might give some other people some ideas.

**Touche!**

ONE Los Angeles long distance operator has endeared herself to the hearts of everyone who has listened to a Texan brag about his state.

This operator was placing a call for a homesick man from the Lone Star state.

"I want to call my home in Dallas, Texas," he announced.

The operator immediately completed his call, and he had quite a lengthy conversation with someone in his hometown of Dallas, Texas.

"That will be $6 sir," reckoned the operator.

"Six dollars?" howled the Texan. "Why, ma'am, back home I can call to hell and back for only a dime."

"That is correct sir," replied the operator. "That would be a local call."

**Stubborn Bird**

ALTHOUGH the ability to talk is not uncommon among parakeets, stubbornness is seldom listed as one of their special traits. But it is this mulish quality which recently caused consternation to a Fargo, North Dakota woman . . . and relief to another in Alexandria, Louisiana.

The Louisiana parakeet, Pancho by name, was returned to his owner only after his finder realized that his insistent crackling of the numbers 2-2-1-9-3 was his way of telling them his home telephone number.

In Fargo, the plot is nearly the same, but the bird's efforts are misdirected. The parakeet, who remains nameless, had just succeeded in memorizing his name and phone number when the city's telephone numbers were changed. Now he stubbornly ignores all efforts to teach him the new number.

**Telephone Anxiety**

THE NEW YORK Daily News reports that Dr. Herbert I. Harris has discovered a new neurosis — telephone anxiety. His research indicates that this anxiety comes from worrying that the party on the other end of the line will hang up.

Perhaps. We suppose the lady at our house, for example, does worry now and then that a telephone conversation will end too soon. Our research indicates that she is usually anxious to find out what everyone had on at the party she missed, who was there she didn't know and who was there and didn't know it. But there our research stops, because the conversation never does until the last anxiety is quelled.

As for our teenager, there's no cause for anxiety about anyone ever hanging up on either and, so far as we can see. Teenagers just never do. Our research indicates that it's the parents who hang up the phones and any anxiousness this might cause passes as soon as the phone rings again.

For our part, plainly the doctor's got the wrong number. To be sure, we've got what might be called a telephone anxiety. But that somebody will hang up on us is the least of our worries. At home, we can't even get near the telephone.

**Good Excuse**

NO DOUBT it's apocryphal, but it's a good story. A small boy called Information to ask the number of the local movie house. The operator told him and added, "You will find that number in your directory."

"I know that," replied the very youthful voice, "but I'm standing on the book!"

**No Apology, Please**

ALONG THE SAME LINE, of course, was the height of needless apology reached when a Flint, Mich., woman called the information operator for the number of the local drug store. "I'm sorry to bother you," she apologized, "but the reason I'm asking is that my house burned down and my directory with it."

# makes every Information Operator a STAR performer!

Put any operator before Automatic's new Type 6 Information Board, and watch! Once she flicks the "TALK" key, all she has to do is look up information. That's because automatic switching equipment (Type 6 is the first information board to have it) distributes the calls... helps the operator work *faster*. Many other useful features also speed her job and make it *easier:*

- Desks with plenty of working room (even armrests!)
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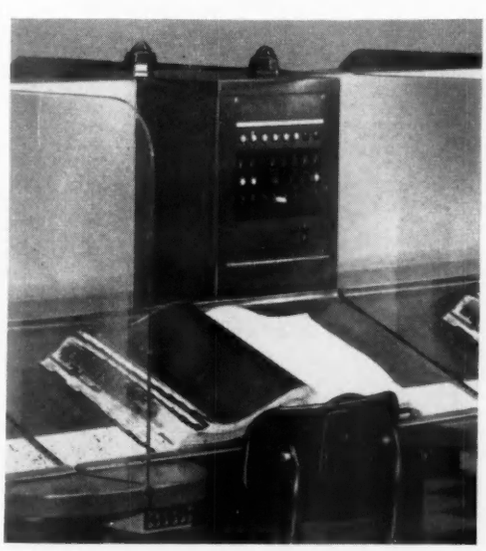
- Sound-and-sight identification of calls
- Fast-working release key
- "Link" to every incoming trunk

Prompt, more efficient Information service is a *sure thing* with this modern board. Your company, too, can have Information operators who really sparkle. Write today for the full facts in Circular 1846. Address: *Automatic Electric Sales Corporation, 1033 W. Van Buren St., Chicago 7.* Or, call *HAymarket 1-4300.*



◀ Automatic's TYPE 6 Information Board

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ORIGINATORS OF THE DIAL TELEPHONE

GENERAL SYSTEM

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Ask us about our COMPLETE
DIRECTORY SERVICE PLAN now used by
independent telephone companies
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It could be the tonic *your* Directory needs.

You are cordially invited to write any one of our Division Sales Offices listed below, or Frank Davies, Chairman, or Wesley H. Loomis III, President, for information concerning our Directory services — and if the spirit moves you, call us collect.

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